REMARKS

Applicants respectfully request that the above-identified application be re-examined.

Paragraph 2 of the final Office Action in this application, mailed February 24, 2005 ("Office Action"), requested clarification regarding incorporating by reference the content of parent Application Nos. 09/064,797 and 09/299,156. Application No. 09/064,797 is the first parent of the above-identified application and was filed on April 22, 1998. Application No. 09/299,156 is a continuation-in-part (CIP) of Application No. 09/064,797 and was filed April 22, 1999, one year after the filing date of Application No. 09/064,797. The present application is a continuation of Application No. 09/299,156. While Application No. 09/299,156 includes all if not substantially all of the subject matter of Application No. 09/064,797, it also includes additional subject matter. In this regard, in the event a copy is not readily available to the Examiner, enclosed is a copy of the specification, including the drawings, of Application No. 09/064,797 (Attorney Docket No. ECHG-1-12036). Using the drawings as a metric, when compared to the drawings of the present application, FIGURES 1-4 of Application No. 09/064,797 are the same as FIGURES 1-4 of the present application. FIGURE 5 of the present application is not included in the drawings of Application No. 09/064,797. FIGURES 5A-12 of Application No. 09/064,797 are the same as FIGURES 6A-13 of the present application, the numbers being incremented by one digit. FIGURES 14-22 of the present application are new. Using the claims as a metric, Claims 1-32 of Application No. 09/064,797 are the same as Claims 1-32 of the present application (prior to this amendment). Claims 33-67 of the present application are new. If this clarification does not fulfill the Paragraph 2 request of the Office Action, applicants request a more detailed description of the type of clarification that is being requested.

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The Office Action also rejected Claims 1, 10-14, 21, 22, and 27-30 under 35 U.S.C. § 103(a) as being unpatentable over Harwood (presumably U.S. Patent No. 6,058,250, more appropriately identified as Harwood et al.). Claims 3, 4, 17, 18, 25, 26, 31, and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Harwood et al. as applied to Claim 1, further in view of allegedly admitted prior art disclosed by Ronen (presumably U.S. Patent No. 5,905,736, more appropriately described as Ronen et al.). Claims 2, 6, 7, 15, 16, 23, 24, 29, and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Harwood et al. as applied to Claim 1 further in view of Kambe (presumably U.S. Patent No. 5,818,933, more appropriately described as Kambe et al.). Claims 5, 8, 9, 19, and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Harwood as applied to Claims 1 and 10 further in view of Ronen et al. Claims 33, 36, 40, and 41 were rejected under 35 U.S.C. § 103(a) as being unpatentable over prior art titled, "Retailers, OSPs. Race to Secure Online Sales," published in *Computer Retail Week*, January 6, 1997, by Todd Wasserman (hereinafter "Wasserman article"), in view of U.S. Patent No. 5,729,594 (Klingman). An article titled "Integrated Billing and the Internet," published in *Telecommunications*, June 1997, by Phil Sweetland (hereinafter Sweetland article") was also referenced in the rejection of Claims 33, 36, 40, and 41. Claims 34, 35, 37, 38, 39, and 42-67 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Wasserman article and Klingman as applied to Claims 1 and 8,[1] further in view of Walker (presumably U.S. Patent No. 5,137,414, more appropriately identified as Walker et al.).

While applicants believe that all of the previously presented claims are allowable, in order to advance the prosecution of this application, Claims 1, 10, 14, 15, 17-20, 33, 37, 40, and 63 have been amended. In addition, Claims 11-13, 21-26, and 52-62 have been canceled.

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[1] Presumably the reference to Claims 1 and 8 is in error, since none of Claims 34, 35, 37, 38, 39, and 42-67 depend from Claims 1 or 8. Applicants believe that the claim reference was intended to be 33, 36, 40, and 41.

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Further, Claims 68-85 have been added. Of the claims presently remaining in this application, Claims 1, 10, 27, 33, 63, 68, and 82 are independent claims. All of the remaining claims currently in this application are dependent.

Prior to discussing in detail why applicants believe that all of the claims in this application are allowable, a brief description of applicants' invention and brief descriptions of the teachings of the cited and applied references are provided. The following discussion of applicants' invention and the cited and applied references are not provided to define the scope or interpretation of any of the claims of this application. Instead, these discussions are provided to help the United States Patent and Trademark Office better appreciate important claim distinctions discussed thereafter.

Applicants' Invention

In one form, the invention is directed to a method for ordering a product over an internetwork of computer systems, wherein the product is ordered by a consumer from a computer connected to the internetwork and supplied by a server connected to the internetwork. The method comprises establishing a connection between the computer and the server via the internetwork of computer systems, transferring a transaction identifier from the server to the computer, wherein the transaction identifier identifies the product ordered and the computer ordering the product, and terminating the connection between the computer and the server via the internetwork of computer systems. The method further comprises establishing a direct connection between the computer and the server, transferring the transaction identifier from the computer to the server to identify the product ordered, and the computer ordering the product and transferring an access key assigned to the product ordered, and the consumer ordering the product from the server to the computer that is used to claim the product ordered by the customer.

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In another form, the invention is directed to an apparatus for ordering a product via an internetwork formed by a plurality of computers and servers. The apparatus comprises a consumer's computer and a billing server. The consumer's computer comprises a network interface for connecting to the internetwork, a processing unit coupled to the network interface, and a storage medium coupled to the processing unit. The storage medium contains program code executed by the processing unit for placing an order for the product by (i) establishing a connection to the billing server via an internetwork communication link; (ii) transferring the order to the billing server via the internetwork communication link; (iii) terminating the connection to the billing server via the internetwork communication link after a transaction identifier has been received from the billing server; (iv) establishing a connection to the billing server via a premium connection link; and (v) transferring the transaction identifier back to the billing server via the premium communication link. The billing server comprises a network interface for connecting to the internetwork, a processing unit coupled to the network interface, and a storage medium coupled to the processing unit. The storage medium contains program code executed by the processing unit for processing the order for the product placed by the consumer's computer by transferring the transaction identifier to the consumer's computer via the internetwork communication link, which identifies the order placed by the consumer's computer.

In a further form, the invention is directed to a computer readable medium having a computer executable component for fulfilling an order for a product placed by a computer connected to an internetwork of computers and servers. The computer-executable component comprises a billing component which fulfills the order by: (a) providing the computer a transaction identification assigned to the order after an internetwork connection with the computer is established; and (b) providing the computer an access key assigned to the order

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identified by the transaction identification after a point-to-point connection with the computer is established, and after the computer returns the transaction identification.

In yet another form, the invention is directed to a method for ordering a product over an internetwork of computer systems, wherein the product is ordered by a consumer's computer connected to the internetwork. The method comprises establishing a premium telephone connection between the consumer's computer and a billing server connected to the network. During the premium telephone connection between the consumer's computer and the billing server, the method comprises (i) providing the consumer's computer with access information comprising an access identification to a designated communication session between the consumer's computer and a merchant server connected to the internetwork, a password for claiming the ordered product, and a locator for the ordered product identifying the location of the ordered product on the merchant consumer connected to the internetwork; (ii) establishing an internetwork connection between the consumer's computer and the merchant server using the access information; and (iii) transferring the ordered product from the merchant server to the consumer's computer.

In yet a further form, the invention is directed to a computer-readable medium having a computer-executable component for supplying a consumer computer connected to an internetwork of computers and servers with access to a product ordered by the consumer computer. The computer-executable component comprises a merchant component that processes the order by (a) establishing an internetwork communication link between a merchant server and a billing server connected to the internetwork, the billing server processing the order for the product placed by the consumer computer; and (b) providing the billing server with access information comprising an access identification to a designated communication session between the consumer computer and the merchant server, a password for claiming the ordered product,

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and a locator for the ordered product identifying the location of the ordered product on the merchant server to be used by the consumer computer to access the ordered product from an identified server connected to the internetwork while the consumer computer and the billing server are connected via a premium communication link.

In yet still another form, the invention is directed to a computer readable medium having a computer executable component for ordering a product from a plurality of computers and servers connected to form an internetwork. The computer-executable component comprises a plug-in component for ordering a product from the plurality of computers and servers connected to form the internetwork. The plug-in component places an order for the product by (a) establishing a premium telephone communication link with a billing server connected to the internetwork that processes the order for the product; (b) transferring the order for the product to the billing server for processing; and (c) obtaining access information from the billing server via the premium telephone communication link, which is used to claim the ordered product.

In a yet still further form, the invention is directed to a computer-readable medium having a computer-executable component for processing an order for a product placed by a consumer computer connected to an internetwork of computer servers. The computer-executable component comprises a billing component which processes the order by (a) providing the consumer computer with a premium telephone number for establishing a premium communication link between the consumer computer and the billing server; and (b) providing the consumer computer with access information comprising an access identification to a designated communication session between the consumer computer and a merchant server connected to the internetwork, a password for claiming the ordered product, and a locator for the ordered product identifying the location of the ordered product on the merchant server connected to the

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internetwork, which enables the consumer computer to access the ordered product while the consumer computer and the billing server are connected via the premium communication link.

United States Patent No. 6,050,250 (Harwood et al.)

Harwood et al. is directed to a bifurcated transaction system in which non-sensitive information is exchanged using a public network connection, such as the Internet, and sensitive information is exchanged after automatically configuring a private network connection, such as the public switched telephone network ("PSTN"). In its basic form, illustrated in Figure 3, a user terminal 301 initiates a call via the Internet 320 to a World Wide Web (WWW) serving node 330. After establishing the connection to the node, the user proceeds with a desired information transaction up to a point where an exchange of sensitive or proprietary information, such as supplying the user's credit information, is required. At that point, the user terminal terminates the connection (i.e., hangs up) and places a new call to a private server 350 via the PSTN 340 or some other private network.

While Harwood et al. purportedly discloses establishing a connection between a computer and a server via an internetwork, terminating the connection and establishing a subsequent connection to another server via a telephone network, here any similarity between Harwood et al. and the present invention ends.

Harwood et al. describes three embodiments, one having basic jump capabilities, a second having "shopping cart" capabilities, and a third having stored configuration capabilities. The embodiment having basic jump capabilities, it is described in Col. 6, line 31 through Col. 7, line 11. After conducting an information transaction with the selected WWW serving node for some interval (determined in relation to the specific application accessed), the user clicks on a hypertext link or picture to begin an automated process that causes the public session to be terminated, and a new connection is established through an alternative private data network.

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(Col. 6, lines 36-43.) As described in Col. 6, lines 44-56, the user's action results in bridging software causing the modem (303, Figure 3), to disconnect from the WWW serving node and dial the alternative private data network, i.e., the PSTN 340. After establishing a connection to the private server on the alternate data network, the user interacts with the alternate data network application as appropriate, and after an interval completes his activity with the alternate data network and provides an indication of such completion. (Col. 6, lines 57-63.) The bridging software then dials the original public data network or another preselected network, the bridging software automatically causing the current private data network to be disconnected by the modem. When a reconnection is established, the end user continues his applications in the public data network. This embodiment of Harwood et al. clearly does not teach or suggest applicants' invention as summarized above.

The embodiment having "shopping cart" capability is described in Col. 7, line 13, through Col. 8, line 23. In this embodiment, a user begins by establishing a connection to a WWW application at a server node using the user's Internet browser (303, Figure 3) and the modem (also 303, Figure 3). Upon finding an item to be saved, remembered for later consideration, or purchased, the user clicks on a hypertext link or picture representing that item. This action causes a data message to be sent to the bridging software about the item selected. The information is stored by the bridging software in a "shopping cart" file in the user's terminal. This sequence is repeated until the user decides to "check out." See Col. 7, lines 13-42. When the user decides to "check out," the user clicks on a hypertext or a picture. This action begins a process causing a jump to an alternate data network for completion of sensitive portions of the transaction. After the connection to the alternate data network is made, the bridging software passes the stored "shopping cart" data captured from the WWW application to the alternate network where the data may be displayed for the user, permitting the user to confirm and/or

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modify the data. The user interacts with the alternate data network application as appropriate and, after an interval, completes his activity with the alternate data network. Completion provides an appropriate completion signal to the application, completes the private portion of the information transaction. See Col. 7, line 64, through Col. 8, line 6. When the transaction is completed, a data message is sent from the alternate data network application to the bridging software, causing the bridging software to be reconfigured to allow the user to dial the original or another data network. Again, this embodiment of Harwood et al. clearly does not teach or suggest applicants' invention summarized above.

The embodiment with stored configuration capabilities is described in Col. 8, lines 24-67. First, an end user is connected to a chosen WWW server node via modem and the Internet. After connection, the user selects a hypertext link or picture associated with a WWW application by clicking on the hyperlink or a picture. A data message containing parameter reconfigure instructions and an application icon is sent from the WWW application to the bridging software. In response, the bridging software creates an icon for display at the user's terminal and saves a bridging software configuration file that is associated with the icon. At this point, the user can continue the on-line session, or, if all desired selections have been made, a signal is provided from the user that the session should be discontinued. After disconnecting from the WWW application, a new application is selected by the user clicking on the appropriate new icon displayed at the user's terminal. The bridging software receives the reconfiguration instructions from the file associated with the selected icon and reconfigures the software to dial the alternate data network, i.e., the PSTN and the private server 350. Upon establishing a connection to the alternate network, the user interacts with the application and completes the transaction to the user's satisfaction. Again, this embodiment of Harwood et al. clearly does not teach or suggest applicants' invention as summarized above.

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United States Patent No. 5,905,736 (Ronen et al.)

Ronen et al. is directed to a method of billing transactions over the Internet. Upon connection of a user's terminal to an Internet access provider (IAP), the IAP transmits to a billing platform a message that associates the user's identity with a temporary Internet protocol (IP) address that is assigned by the IAP to the user's session for use by the user's terminal. In response to a chargeable transaction with an Internet server provider (ISP), the ISP transmits to the billing platform the IP address of the user making the transaction and the charge for the transaction. The charges for all such transactions are accumulated by a transaction server and stored in an account of an associated database that is associated with the IP address of the requesting terminal. At the end of the user's session, the charges for all of the transactions during the session that are stored on the transaction server database in the account identified with the IP address are charged to an account associated with the user's identity that is stored in a database of the billing server by cross-referencing the IP address to the user's identity. Depending upon what is stored in the database, the charge can be to a credit card, a debit card, a phone bill, or some other conventional charging system or source. As with Harwood et al., Ronen does not teach or suggest applicants' invention as summarized above.

United States Patent No. 5,818,933 (Kambe et al.)

Kambe et al. is directed to a copyright control system that includes encryption and decryption. More specifically, the copyright control system is equipped with encryption/decryption hardware that accepts encrypted copyright digital information. The encryption/decryption hardware decrypts the encrypted digital information using a decryption key obtained from a copyright control center. Kambe et al., as with the previously described references, does not teach or suggest applicants' invention.

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"Retailers, OSPs. Race to Secure Online Sale," *Computer Retail Week*, January 6, 1997, by Todd Wasserman ("Wasserman article")

The Wasserman article merely describes the boost electronic commerce is receiving from what in 1996 was a spate of product and partnership announcements. Wasserman does not include any technical descriptions of any systems. For example, it states that AOL, in effect, became a computer retailer. The article goes on to state that AOL will sell some products from more than 1,000 vendors featured in an on-line store. Apparently, a reseller (any CX), would provide the bulk of the inventory. Clearly, the Wasserman article does not teach or suggest applicants' invention summarized above.

"Integrated Billing and the Internet," *Telecommunications*, June, 1997 by Phil Sweetland ("Sweetland article")

Like the Wasserman article, the Sweetland article is not technically based. It describes the need for Internet billing systems and the advantage that Internet service providers (ISPs) have in this environment. As with the Wasserman article and the foregoing references, the Sweetland articles does not teach or suggest applicants' invention.

United States Patent No. 5,729,594 (Klingman)

Klingman is directed to an on-line secured financial transaction system that employs electronic media. More specifically, Klingman purportedly discloses a remote communication system for facilitating secure electronic purchases of goods online. A local user input device in association with a data transmission system couples a user input into a packet network system for communication to a remote receiver/decoder apparatus. Upon selection of a desired product by a user, a telecom network link is used to communicate a telephone number associated with a desired product from the user to the remote receiver to allow the user to buy the desired product. The telecom network used to link the user input device to the remote apparatus may also include

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a 900 number billing system for assessing and collecting fees for use of the system. As with the other references, Klingman does not teach or suggest applicants' invention as summarized above.

United States Patent No. 5,737,414 (Walker et al.)

Walker et al. is directed to a 900 number billing and collection system and method for online computer services. More specifically, Walker et al. is directed to a billing and collection service for enabling payment for a service provided over a data network. Payment occurs by billing a customer for a telephone connection to a shared revenue billing network where the telephone connection to the billing network regulates access to the service provided over the data network. The system comprises a data network including at least one user on-line service provider presenting at least one service for on-line access by a user with a user computer through the data network. The system also comprises a billing network and an access management computer for controlling access to the on-line service provider and billing the user for access to the on-line service provider. The system further includes an access management computer communicating with the data network for enabling and terminating access to the on-line service provider through the user computer. As a result, the billing network shares revenues for the telephone connection with the on-line service provider. Again, Walker et al. does not teach or suggest applicants' invention as summarized above.

Rejection of Claims 1, 10-14, 21, 22, and 27-30 Under 35 U.S.C. § 103(a)

As noted above, the Office Action rejected Claims 1, 10-14, 21, 22, and 27-30 under 35 U.S.C. § 103(a) as being unpatentable in view of United States Patent No. 6,058,250 (Harwood et al.). Of these claims, Claims 11-13 and 21 and 22 have been canceled. As amended, Claim 1 reads as follows:

> 1. A method for ordering a product over an internetwork of computer systems, wherein the product is ordered by a consumer from a computer connected to the internetwork and supplied by a merchant with a server connected to the internetwork, the method comprising:

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(a) establishing a connection between the computer and the server via the internetwork of computer systems;

(b) transferring a transaction identification from the server to the computer, wherein the transaction identification identifies the current transaction including the product ordered and the consumer ordering the product;

(c) terminating the connection between the computer and the server via the internetwork of computer systems;

(d) establishing a direct connection between the computer and the server;

(e) transferring the transaction identification from the computer to the server to identify the product ordered and the consumer ordering the product; and

(f) transferring an access key assigned to the product ordered and the consumer ordering the product from the server to the computer that is used to claim the product ordered by the consumer.

Remarks accompanying the rejection of Claim 1 of the Office Action read as follows:

> With regard to element "a" as Claim 1, Harwood teaches on on-line transaction system that utilizes a public network connection between a user computer and a vendor system to conduct the information access, and a separate, private network to exchange sensitive user information (see Harwood Figure 4 and also Column 6, lines 25-65).
>
> With regard to element "b" of Claim 1 Harwood teaches a system whereby the user selects a hypertext link, or a picture, representing an item, to be purchased. The server software application then sends specially configured files containing product information, reconfiguration information, and other data messages to the user system (see Column 5, lines 17-24. The order information is then stored in a "shopping cart" in the user's terminal (see Column 6, lines 9-11) and also Column 7, lines 21-26). **While Harwood does not explicitly disclose the user of a "transaction identifier,"** the method taught downloads and uses "Bridging Software" to perform computer to dial-out over a separate secure network. **One skilled in the art, including a merchant or web site operator, would be motivated to perform this step in the server environment. In a distributed server environment, the product and user data would remain resident on the server until the consumer completes their selections. At that time, the specific product information and customer information rather than an entire product**

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catalog would be downloaded to the "Bridging Software." The Bridging Software would then be called to effect a re-connect to a private network. In this manner, the web site operator would perform all product selection database retrievals in the distributed server environment rather than in a combination of server and user environments. This would thereby keep updated product information intact on the server rather than necessitate a plethora of updates to be performed on all users who may be using outdated product information. Further, motivation would be to keep catalog transfers (and the size of the data necessary) to a minimum to free up distributed server and network time rather than consumer these resources by downloading product catalog. The web merchant would then merely download a data set identifying customer and the unique product(s) that the customer wants to order rather than an entire product database. This new, smaller data set is, in effect, the transaction identification. Therefore, the examiner asserts, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to employ a distributed computer server environment and the described transaction identifier in the invention of Harwood.

With regard to elements "c" and "d" of Claim 1, Harwood teaches a method for terminating the initial connection between the computer and the server and automatically establishing a direct connection between the computer and the server via a private network (see Harwood Figure 3 and Column 4, lines 59-60).

With regard to element "e" of Claim 1, Harwood teaches a method using a local computer to select the final order. **However, using the distributed system described above, the transfer of the transaction ID rather than the entire product data set would be a much cleaner and efficient manner of uploading the product information to the payment system over the secure network to initiate the billing function. Again, one skilled in the art using he server would be motivated to keep these files as small as possible to conserve computer and network resources while keeping a "master" product list on the servers rather than individual user terminals. Therefore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to employ the transfer of the smaller transaction identifier rather than the larger product data set in the invention of Harwood.**

With regard to element "f" of Claim 1, Harwood teaches a system where the "Bridging Software" is downloaded to the user computer to effect the

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> reconfiguration and payment settlement of the items purchased. **In a software package or other electronic product offering, the vendor would be motivated to transfer the selected product(s) directly to the user computer along with the reconfiguration data. That would eliminate further unsecured network interactions between the user and the server. The vendor would be further motivated to encrypt the product until a time that payment could be (i.e., after the user is made to secure network) to ensure that the payment transaction was completed successfully. Likewise, an access key would have to be transferred from the billing computer to gain access to the product once payment was verified. This type of sale of electronic products is well known in the art, and the Examiner takes Official Notice as such. Therefore, it would have been obvious to one having skill in the art, at the time the invention was made, to employ the encrypted software and access key transfers to the method of ordering products as described by Harwood.** (Emphasis added.)

Applicants respectfully disagree. While applicants agree that Harwood purportedly teaches an on-line transaction system that utilizes a public network connection between a user computer and a vendor system to conduct information access in a separate, private network to exchange sensitive user information, as noted above, here any similarity between Harwood et al. and the claimed invention ends. Applicants agree that the use of a transaction identifier and access key have a number of advantages. However, applicants disagree with the Office Action's conclusion that the subject matter relating to these two items recited in Claim 1 would be obvious in view of the teachings of Harwood et al. In effect, the Office Action is using forbidden hindsight reasoning to, in essence, modify Harwood et al. in a manner only suggested by the present invention, not taught or suggested by Harwood et al. More specifically, Harwood et al. does not teach or even remotely suggest the subject matter referenced in the highlighted portion of the remarks accompanying the rejection of Claim 1 set forth above. The fact that the claimed invention may have been within the capabilities of one of ordinary skill in the art at the time the invention was made is not sufficient by itself to establish a *prima facie* case of obviousness. In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there

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must be some suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify a reference. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be filed with the prior art and not based on applicants' disclosure. *In re Vaeck,* 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). M.P.E.P. § 2143-2143.03 includes decisions pertinent to the foregoing criteria which have clearly not been met. Since the Office Action has not established a *prima facie* case of obviousness, applicants respectfully submit that Claim 1 is clearly allowable.

Claim 10 has been amended so as to include recitations similar in many ways to recitations contained in Claim 1 including the use of a transaction identifier. Applicants respectfully submit that Claim 10, like Claim 1, includes recitations that are not obvious in view of the teachings of Harwood et al., and, thus, submits that Claim 10 is also allowable. Since Claims 11-13 have been canceled, they will not be further discussed.

Claim 14 depends from Claim 10 and adds the access key feature recited in Claim 1 and discussed above. Since this subject matter is not taught or suggested by Harwood et al., as recognized by the Examiner, applicants respectfully submit that Claim 14 is also allowable.

Since Claims 21 and 22 have been canceled, they will not be further discussed.

Claim 27 reads as follows:

> A computer-readable medium having a computer-executable component for fulfilling an order for a product placed by a computer connected to an internetwork of computers and servers, the computer-executable component comprising a billing component which fulfills the order by:
>
> (a) providing said computer a transaction identification assigned to the order after an internetwork connection with said computer is established; and

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(b) providing said computer an access key assigned to the order identified by the transaction identification after a point-to-point connection with said computer is established and after said computer returns the transaction identification.

Remarks in the Office Action accompanying the rejection of Claim 27 read as follows:

> With regard to Claim 27, the computer-executable component is **the software program used to provide a transaction ID and access key** described in Claims 1, 12, 14, 21, and 22 above and is rejected on the same basis. (Emphasis added).

As discussed above, Harwood et al. clearly does not teach or even suggest either a transaction ID or an access key. As a result, applicants respectfully submit that Claim 27 is clearly not obvious in view of the teachings of Harwood et al. and, thus, is also allowable.

Claim 28 is dependent upon Claim 27 and reads as follows:

> The computer-readable medium of Claim 27 having a further computer-executable component comprising a plug-in component for placing the order for the product, wherein the plug-in component places the order for the product by:
>
> (a) establishing the internetwork connection with said computer;
>
> (b) receiving the transaction identification provided by the billing component;
>
> (c) disconnecting the internetwork connection with said computer;
>
> (d) establishing the point-to-point connection with said computer;
>
> (e) returning the transaction identification to the billing component; and
>
> (f) receiving the access key assigned to the order identified by the transaction identification which is used to claim the ordered product.

Remarks accompanying the rejection of Claim 28 read as follows:

> With regard to Claim 28, the computer-executable component consisting of the plug-in module is the software program used to establish the network connection, receive the **transaction ID**, disconnect the

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> internetwork connection, establish a point-to-point connection, return the transaction ID, and receive the **access key** described in Claims 1, 11, 12, 13, 14, 21, 22, and 27 above is rejected on the same basis. (Emphasis added).

As discussed above, Harwood et al. clearly does not disclose a transaction identifier or an access key as recognized in the remarks accompanying the rejection of Claim 1. As also discussed above, applicants submit that the Office Action has not established a *prima facie* case of obviousness with respect to the recitations of Claim 1, particularly with respect to these two items. Thus, applicants respectfully submit that Claim 28 is allowable for reasons in addition to the reasons why Claim 27 is allowable.

Claims 29 and 30 which depend from Claims 28 and 29 respectively, read as follows:

> 29. The computer-readable medium of Claim 28, wherein the billing component also provides said computer with an encrypted version of the product ordered before the plug-in component disconnects the internetwork connection with said computer.
>
> 30. The computer-readable medium of Claim 29, wherein the plug-in component decrypts the encrypted version of the product with the access key provided said computer by the billing component.

Remarks accompanying the rejection of Claims 29 and 30 read as follows:

> With regard to Claims 29 and 30, the computer-readable medium is the concrete storage medium where the billing component resides consisting of the plug-in module as the software program used to establish the network connection, receive the transaction ID, disconnect the internetwork connection, establish a point-to-point connection, return the transaction ID, and receive the access key described in Claims 1, 11, 12, 13, 14, 21, 22, and 27 above and is rejected on the same basis.

Frankly, applicants do not understand the foregoing remarks. Claims 29 and 30 are clearly directed to encryption and decryption, which is not taught or even remotely suggested by Harwood et al. as far as applicants have been able to determine. The remarks do not even address the subject matter recited in Claims 29 and 30. As a result, applicants respectfully

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submit that Claims 29 and 30 are allowable for reasons in addition to the reasons why the claims in which Claims 29 and 30 depend are allowable.

Rejection of Claims 3, 4, 17, 18, 25, 26, 31, and 32 Under 35 U.S.C. § 103(a)

As noted above, Claims 3, 4, 17, 18, 25, 26, 31, and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable in view of the teachings of Harwood et al. as applied to Claim 1, and further in view of the teachings of Ronen et al. Of these claims, Claims 25 and 26 have been canceled. Claims 3 and 4 depend from Claim 1, Claims 17 and 18 depend from Claim 10, and Claims 31 and 32 depend from Claim 27. More specifically, Claim 3 is dependent upon Claim 1 and recites that the direct connection between the computer and server is established via a telephone link administered by a telephone service provided so that when the direct connection between the computer and the server is established, the telephone service provided automatically charges for the telephone link in the product order. Claim 4 is dependent upon Claim 3 and recites that the a telephone link is associated with a 900 telephone number. Claim 17 is dependent upon Claim 10 and recites that the consumer is automatically billed for the order placed by the consumer's computer by the premium communication service provider of the premium communication link. Claim 18 is dependent upon Claim 17 and recites that the consumer's computer dials a 900 telephone number to establish the premium communication link. Claim 31 is dependent upon Claim 27 and recites that the telephone communication link is associated with a 900 telephone number. Claim 32 is dependent upon Claim 27 and recites that the telephone communication link established by the plug-in component is administered by a telephone service provider which bills for the product ordered via the telephone communication link.

While Ronen et al. purportedly teaches some of the subject matter of Claims 3, 4, 17, 18, 31, and 32 when taken in the abstract, applicants respectfully submit that there is no teaching or

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suggestion in either Harwood et al. or Ronen et al., how their individual teachings could be combined in any manner, much less the manner recited in these claims. As a result, applicants respectfully submit that Claims 3, 4, 17, 18, 31, and 32 are allowable for reasons in addition to the reasons why the claims from which these claims depend are allowable.

Rejection of Claims 2, 6, 7, 15, 16, 23, 24, 29, and 30 Under 35 U.S.C. § 103(a)

As noted above, Claims 2, 6, 7, 15, 16, 23, 24, 29, and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable in view of the teachings of Harwood et al. as applied to Claim 1, taken further in view of the teachings of Kambe et al. Of these claims, Claims 23 and 24 have been canceled. Claims 2, 6, and 7 are dependent on Claim 1. Claims 15 and 16 depend in *seriatim* from Claim 14. Claims 29 and 30 depend in *seriatim* from Claim 28. More specifically, Claim 2 is dependent upon Claim 1 and recites that while the computer is connected to the server via the internetwork of computer systems, transferring an encrypted version of the product from the server to the computer; and after transferring the access key from the server to the computer, claiming the product ordered by the computer by decrypting the encrypted version of the product using the access key. Kambe et al. purportedly discloses encrypting and decrypting digital information. Applicants respectfully submit that Kambe et al's broad encryption and decryption suggestion does not teach or suggest the subject matter recited in Claim 2, much less how the subject matter could be combined in any manner with the subject matter recited in Claim 1. As a result, applicants respectfully submit that Claim 2 is allowable for reasons in addition to the reasons why Claim 1 is allowable.

Claim 6 is dependent upon Claim 1 and recites that the access key is generated at random. Claim 7 is dependent upon Claim 1 and recites that the access key is selected from a list of predetermined access keys. Remarks to the Office Action accompanying the rejection of Claims 6 and 7 read as follows:

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> With regard to Claims 6 and 7, the examiner respectfully asserts that specific methods of encrypting/decrypting software programs to prevent users from unauthorized access are well known by those skilled in the art and takes Official Notice as such. Further, one skilled in the art would be motivated to employ these well-known encryption/decryption methods in the ordering system of Harwood to ensure that the software or other electronic products were not enabled until proper payment means were secured. **The decryption routine, or access key, can be generated in any number of ways such as random generation, selection from a predetermined database of acceptable decryption methods, an RSA-type of decryption, and others. Use of these established methods would eliminate the need to devote excessive resources to their development. Therefore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to combine one of the well-known encryption methods in the method of Kambe for use in the ordering system of Harwood. Claims 6 and 7 are rejected.** (Emphasis added.)

Regardless of the accuracy of the highlighted statements, applicants respectfully submit that Kambe et al. does not teach or suggest the subject matter recited in Claims 6 and 7. While an access key can be employed in an encryption and decryption method, the recitation of an access key does not necessarily imply encryption or decryption. Claim 1 recites that the access key is used to claim a product ordered by a consumer. The product may or may not be an encrypted product. It could be a "hard" product. As a result, applicants respectfully submit that Claims 6 and 7 are allowable for reason in addition to the reasons why Claim 1 is allowable.

Claim 15 is dependent upon Claim 14 and recites that the program code executed by the processing unit of the billing server further processes the order for the product placed by the consumer's computer by transferring an encrypted version of the product to the consumer's computer via the internetwork communication link before the consumer's computer terminates the connection to the billing server via the internetwork communication link. Claim 16 is dependent upon Claim 15 and recites that the program code executed by the processing unit of the consumer's computer further places the order by decrypting the encrypted version of the product using the access key transferred to the consumer's computer by the billing server via the

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telephone link. Claim 29 is dependent upon Claim 28 and recites that the billing component also provides said computer with an encrypted version of the product ordered before the plug-in component disconnects the internetwork connection with said computer. Claim 30 is dependent upon Claim 29 and recites that the plug-in component decrypts the encrypted version of the product with the access key provided said computer by the billing component. While Kambe et al. purportedly does disclose an encryption and decryption mechanism, there is no teaching or suggestion in either Harwood et al. or Kambe et al. how this subject matter of Kambe et al. could be combined with the subject matter of Harwood et al. in any manner, much less the manner recited in Claims 15, 16, 29, and 30. As a result, applicants respectfully submit that these claims are allowable for reason in addition to the reasons why the claims from which these claims depend are allowable.

Rejection of Claims 5, 8, 9, 19, and 20 Under 35 U.S.C. § 103(a)

Ckauns 5, 8, 9, 19 and 20 were rejected under 35 U.S.C. § 103(a). Claims 5, 8, and 9 depend directly or indirectly from Claim 1. Claims 19 and 20 depend directly or indirectly from Claim 10. More specifically, Claim 5 is dependent upon Claim 1 and recites that the connection between the computer and the server via the internetwork of computer systems is terminated before the transaction identification is transferred, if the order of the product is denied. Claim 8 is dependent upon Claim 1 and recites that the direct connection between the computer and the server is terminated before the access key is transferred if the order of the product is denied. Claim 9 is dependent upon Claim 3 and recites that the direct connection between the computer and the server is terminated before the access key is transferred if the transaction identification is not transferred from the computer to the server within a predetermined time interval. Claim 19 is dependent upon Claim 10 and recites that the program code executed by the processing unit of the billing server further processes the order placed by the consumer's computer by terminating

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the connection between the computer and the server via the internetwork communication link before the transaction identification is transferred to the consumer's computer if orders placed by the consumer's computer are to be denied. Claim 20 is similar to Claim 19 except that it depends from Claim 14.

Remarks accompanying the rejection of Claims 5, 8, 9, 19, and 20 read as follows:

> With regard to Claims 5, Harwood teaches a system where the public network connection is terminated prior to transferring sensitive order information. Ronen teaches that the user interacts with the transaction server to broker the billing mechanism (i.e., method of payment) for the billing server (please see Column 4, lines 20-23). **In each teaching, the establishment of a customer account is the initiating step in the ordering process. To facilitate ordering, the billing server has a stored database of information for each customer that includes information for each transaction charged to that user's account. This information includes credit card information, and personal information such as addresses, et cetera** (see Column 4, lines 43-44). **One skilled in the art, including a merchant or Internet service provider, would be motivated to include payment and credit history in this database and to disconnect from a non-confirmed user since no billing and payment information would be forthcoming, and no assurance of payment could be reasonably guaranteed. It would be elemental for the vendor to break the connection between the server and the user terminal before a transaction ID would be transferred if this information were not available in the database. Therefore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to terminate the connection between the computer and the server via the internetwork of computers before the transaction ID was transferred if the order of the product is denied.** Claim 5 is rejected.
>
> Similarly, with regard to Claims 8 and 9, **if the order of the product is denied, or if an inordinate amount of time elapsed where the transaction identification was not sent from the user terminal to the server, one skilled in the art would be motivated to disconnect the secure connection prior to transferring an access key. Without this disconnect, there would be, in effect, a non-charged transfer of services or goods from the provider to the customer, or a non-confirmed shipment for goods or services. A vendor would be**

motivated to incorporate this connection termination in the system of Harwood as a safeguard means for ensuring payment. Therefore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to incorporate these connection terminations in the Harwood ordering system if order of the product or service is denied or if the transaction ID is not sent to the server in a predefined amount of time. Claims 8 and 9 are rejected.

With regard to Claims 19 and 20, both Harwood and Ronen describe computer systems that physically incorporate the components and effect the methods of their teachings. The apparatus is the concrete technology that permits the structural and functional relationship of the descriptive software material and method to be realized. The limitations in Claims 19 and 20 are as described in Claims 5, 8, and 9 above and are rejected on the same basis. (Emphasis added)

Wasserman describes the offering of America On-Line (AOL), an Internet access provider, as a retailer that sells products from more than one thousand different vendors through its own AOL website (see page 1, paragraph 10). Customers connect to AOL through their modem and telephone outlets, select a vendor and product from the AOL site, and are linked to the merchant site through the AOL, connection. Order information is completed between the consumer and the AOL server, and the software or electronic media for sale through the AOL site is transferred from the individual merchant server to the consumer's computer. As Sweetland describes in the attached "Integrated Billing and the Internet" example, content providers (i.e., the merchants) are motivated to offer their products in this" manner, as they benefit from attracting the ISP's customers without having to get involved directly with the billing. Customers are motivated to purchase products in this manner to take advantage of one stop shopping, and ISPs are motivate to offer products in this manner since a commission is customarily charged when merchandise is sold in this manner through a third party entity.

Applicants respectfully disagree as with Claim 1 discussed above, the foregoing comments do not establish a *prima facie* case of obviousness and, thus, are clearly contrary to the requirements of the M.P.E.P. As a result, applicants respectfully submit that Claims 5, 8, 9, 19, and 20 are clearly allowable for reason in addition to the reasons why the claims from which these claims depend are allowable.

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Rejection of Claims 33, 36, 40, and 41 Under 35 U.S.C. § 103(a)

As noted above, Claims 33, 36, 40, and 41 are rejected in the Office Action under 35 U.S.C. § 103(a) as being unpatentable in view of the Wasserman article taken in view of Klingman et al. Of the foregoing claims, Claim 33 has been amended. Claim 36 depends from Claim 33. Claim 40, which was previously an independent claim, is now a dependent claim which depends from Claim 10. Claim 41 depends from Claim 40. Initially, applicants submit that Claims 40 and 41, as well as the other claims that depend directly or indirectly from Claim 40 (Claims 42-51) are allowable for at least the same reasons that Claim 10 is allowable.

General remarks accompanying the rejection of Claims 33, 36, 40, and 41 read as follows:

> Wasserman describes the offering of America On-Line (AOL), an Internet access provider, as a retailer that sells products from more than one thousand different vendors through its own AOL website (see page 1, paragraph 10). Customers connect to AOL through their modem and telephone outlets, select a vendor and product from the AOL site, and are linked to the merchant site through the AOL, connection. Order information is completed between the consumer and the AOL server, and the software or electronic media for sale through the AOL site is transferred from the individual merchant server to the consumer's computer. As Sweetland describes in the attached "Integrated Billing and the Internet" example, content providers (i.e., the merchants) are motivated to offer their products in this" manner, as they benefit from attracting the ISP's customers without having to get involved directly with the billing. Customers are motivated to purchase products in this manner to take advantage of one stop shopping, and ISPs are motivate to offer products in this manner since a commission is customarily charged when merchandise is sold in this manner through a third party entity.

Remarks specifically directed to Claim 33 read as follows:

> Wasserman does not specifically recite that the connection between the consumer's computer and the AOL billing server is a premium telephone connection, but with regard to element (a) of Claim 33, Klingman teaches an on-line secured transaction system and method whereby a customer purchases goods, services, or content and

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uses a 900 (i.e., premium) telephone number system to pay for the purchases (see Column 6, lines 45-54). The BUY server 24 taught: by Klingman constitutes a billing server as it receives the 900 number telephone calls from the consumer computer (see Column 10, lines 38-41) to complete the financial transaction for the purchased items.

Further, with regard to element (b) of Claim 33, Klingman teaches that the consumer purchases software or hardware on-line from the merchant, and that through the premium telephone connection, the software product is downloaded and delivered from its stored location (see Column 13, lines 36-39 and see also Column 12 and Fig. 6).

Further, in the AOL scenario, the internet work connection between the consumer computer and the merchant server is established" concurrently with the connection between the consumer computer and the AOL billing server. It would be obvious to one skilled in the art to replace the non-premium consumer connection to AOL with the premium connection taught by Klingman to provide consumers a payment alternative to credit cards for purchases of goods and services bought from the AOL retail facility. The employment of the premium 900 number taught by Klingman would allow customers to purchase goods and services without disclosing confidential information such as their identities, their credit card numbers, and other information they may wish to withhold. Merchants and ISPs would be motivated to use the premium 900 number to extend their reach to more customers and provide more and different service to potential customers.

Therefore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to incorporate the premium telephone connection taught by Klingman in the AOL system recited by Wasserman. As such, Claim 1 is rejected.

Claim 33 as amended reads as follows:

33. A method for ordering a product over an internetwork of computer systems, wherein the product is ordered by a consumer's computer connected to the internetwork, the method comprising:

(a) establishing a premium telephone connection between the consumer's computer and a billing server connected to the internetwork; and

(b) during the premium telephone connection between the consumer's computer and the billing server:

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(i) providing the consumer's computer with access information comprising an access identification to a designated communication session between the consumer's computer and a merchant server connected to the internetwork, a password for claiming the ordered product, and a locator for the ordered product identifying the location of the ordered product on the merchant server connected to the internetwork;

(ii) establishing the internetwork connection between the consumer's computer and the merchant server using the access information; and

(iii) transferring the ordered product from the merchant server to the consumer's computer.

Applicants respectfully disagree with the foregoing remarks regarding Claim 33, particularly as amended. First, the Wasserman article does not "teach" the subject matter stated to be taught. Neither the Wasserman article nor the Sweetland article are technically enabling. The Wasserman article merely describes the boost electronic commerce is receiving from what in 1996 was a spate of products and partnership announcement. The Wasserman article does not describe the technology of any systems broadly referred to in the article. Likewise, with respect to the Sweetland article. More importantly, the Wasserman article, the Sweetland article, or the Klingman patent taken alone or in combination simply do not teach or suggest the subject matter recited in Claim 33, as amended. As a result, applicants respectfully submit that Claim 33 is also allowable.

Claim 36, which depends from Claim 33 reads as follows:

36. The method of Claim 33, further comprising:

prior to establishing the premium telephone connection between the consumer's computer and the billing server,

(a) establishing an internetwork connection between the consumer's computer and the billing server;

(b) transferring an order for the product from the consumer's computer to the billing server; and

(c) transferring a premium telephone number associated with the ordered product from the billing server to the consumer's computer,

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wherein the premium telephone number is used to establish the premium telephone connection between the consumer's computer and the billing server.

Remarks accompanying the rejection of Claim 36 read as follows:

> With regard to element (a) of Claim 36, Klingman teaches the principal objective of providing an on-line financial transaction system that uses computer telecommunication to provide secure and private purchasing capability of products (see Column 6, lines 45-49). At the heart of Klingman's teaching is the consumer placing a call and connecting via FTP or web browser to the web site containing the merchant's demo software or information (see Column 13, lines 1318).
>
> With regard to elements (b) and (c) of Claim 36, Klingman teaches that, upon deciding that they wish to purchase the product, the customer indicates their desire to purchase the product and obtains the 900 number specified from the merchant's product and access information. They then disconnect from the Internet connection and place a call to the 900 number retrieved from the server (see Column 13, lines 13-33). **Those skilled in the art, including customers, would be motivated to use this style of order placement and purchase in the AOL system described by Wasserman to purchase goods, information, content, and services without disclosing confidential information. Merchants and third party entities would be motivated to subscribe to this method of ordering and delivery in order to reach a larger number of customers by providing a compelling reason to buy since this alternative payment scheme would allow more flexibility than solely credit card purchases. Therefore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to employ the connection and transfer scenarios of Klingman in the AOL system recited by Wasserman.** As such, Claim 4 is rejected. (Emphasis added.)

While the foregoing remarks end with a reference to Claim 4, presumably the reference should have been to Claim 36. In any event, as with the rejections of Claims 1 and 10, applicants respectfully submit that the remarks do not establish a *prima facie* case of obviousness. The remarks, particularly those highlighted, are simply speculation unsupported by the teachings of the cited references taken alone or in combination. Thus, the remarks do not comply with the

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M.P.E.P. § 2142 and the examples set forth in M.P.E.P. §§ 2143-2143.03. As a result, applicants respectfully submit that Claim 36 is allowable.

Since Claims 40 and 41 are now dependent from Claim 10, applicants respectfully submit that the rejection of these claims set forth in the Office Action has been rendered moot and, thus, will not address them further here.

Rejection of Claims 34, 35, 37-39, and 42-67 Under 35 U.S.C. § 103(a)

As noted above, Claims 34, 35, 37, 38, 39, and 42-67 were rejected under 35 U.S.C. § 103(a) in the Office Action in view of the teachings of Wasserman and Klingman as applied to Claims 33 and 40 (stated to be Claims 1 and 8) further in view of the teachings of Walker et al. Since Claims 42-51 now depend directly or indirectly from Claim 40, applicants submit that this rejection has been rendered moot with respect to these claims. Thus, these claims will not be further discussed. Since Claims 52-62 were canceled, they will also not be discussed. Claims 34, 35, and 37-39 all depend directly or indirectly from Claim 33. Remarks accompanying the rejection of these claims read as follows:

> With regard to Claim 34, Wasserman teaches that the connection between the consumer and the AOL server remains intact while the order or transaction take place. Nevertheless, Klingman teaches a method of terminating the premium telephone connection between the consumer's computer and the BUY (billing) server and assessing a fee based upon a rate determined by the toll connection provider (see Column 22, Claim 20).
>
> Klingman does not explicitly state that the assessed fee is a product of the rate and the connection duration. Walker, however, teaches a method for charging the prescribed toll fee on a per-minute basis, on a combination of fee levels for different amounts of time, or on a flat-fee basis (see Column 5, lines 48-52) thereby addressing usage charges, tiered access scenarios, and delivered content applications. Walker incorporates this billing method in his system of accessing goods, services, and content provided over a data network. Therefore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to incorporate this billing method of Walker in the transaction system and

method of Klingman related to the AOL system. As such, Claim 34 is rejected.

With regard to Claim 35, Klingman teaches a method of billing for the transactions whereby the charges for access to the premium telephone connection are established at the outset of the communication session rather than at the end (see Column 15, lines 43-50). This method is preferred for the cases when tangible services or goods or content is being accessed such as in the case where a piece of software is downloaded from the billing (BUY) server to the user system. In an embodiment where the consumer is essentially renting time on another web site, (e.g., playing a web-based game, browsing through information or databases, or otherwise paying a set amount per unit of premium connection time), Klingman does not explicitly recite a denial of further access once the premium connection is terminated. However, Walker teaches a method whereby when the user desires to terminate access to the service or content provider, an access management computer sends a termination message to the vendor to terminate access (see Column 9, line 41) and the provider blocks further access until a new session commences. **One skilled in the art, would be motivated to incorporate the rate times duration method of Walker in the financial transaction system of Klingman to cover all types of saleable goods such as discrete products, discrete services, and time-dependent services available for purchase in the AOL system. One would be further motivated to incorporate the termination signal of Walker in this system to ensure that no goods are provided without appropriate charges to the consumer. Therefore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to incorporate the Walker termination notification signal and the duration type of billing in the method of Klingman on the AOL system.** As such, Claim 3 is rejected.

With regard to Claims 37, 38, and 39, Klingman teaches a method whereby the ordered software, or otherwise discrete product, is transferred to the consumer's computer over the 900 number premium telephone connection from the BUY server (see Column 13, lines 36-38). While Klingman employed the offered products on the BUY server itself, either through a contract arrangement or otherwise, he did not explicitly teach that the BUY server would establish an Internet connection between the consumer's computer and the merchant's server.

Walker, however, teaches the use of an "access management computer" that communicates through the telephone network with the Internet and the on-line providers (see Column 6, line 810). In this

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> manner, the system and method of Walker is used to bill customers for a variety of different products, services, and content, depending upon the type of materiel desired by the consumer. Based upon the type of products desired by the consumer, various and different online providers and merchants are solicited.
>
> Specifically, regarding elements (a) and (b) of Claim 38, the access management computer provides unique access messages for consumers to contact each of these merchants. By providing this information in question, the merchant expects a distinct and peculiar consumer session, and when the consumer enters the appropriate, expected information, the session begins, or the product is purchased, or the access is granted. With regard specifically to element (c) of Claim 38, Walker does not explicitly state that a password is used to claim the ordered product, but the examiner asserts that it is well known in the art to employ a password claim as part of the access message and takes Official Notice as such. This password claim further serves to streamline the ordering session if no further interaction is necessary. Therefore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to incorporate a password in the access information of Walker to be used in the transaction method of Klingman in the AOL system. As such, Claims 37, 38, and 39 are rejected. (Emphasis added.)

Applicants respectfully disagree. Even assuming for purposes of argument that many of the comments made in the foregoing remarks are correct, which applicants categorically deny, there is no teaching or suggestion in the individual references themselves how they could be combined in any manner, much less the manner recited in Claims 34, 35, 37, 38, and 39. The Office Action is employing forbidden hindsight reasoning based on the teachings of the present application to combine the disparate teachings of four references. The Office Action is not using the teachings or suggestions of the references. Thus, the Office Action has not established a *prima facie* case of obviousness. As a result, applicants respectfully submit that Claims 34, 35, 37, 38, and 39 are also allowable for reason in addition to the reasons why the claims from which these claims depend are allowable.

Claim 63 is an independent claim which reads as follows:

63. A computer-readable medium having a computer-executable component for supplying a consumer computer connected to an internetwork of computers and servers with access to a product ordered by the consumer computer, the computer-executable component comprising a merchant component which processes the order by:

(a) establishing an internetwork communication link between a merchant server and a billing server connected to the internetwork, the billing server processing the order for the product placed by the consumer computer; and

(b) providing the billing server with access information comprising an access identification to a designated communication session between the consumer computer and the merchant server, a password for claiming the ordered product, and a locator for the ordered product identifying the location of the ordered product on the merchant server, to be used by the consumer computer to access the ordered product from an identified server connected to the internetwork while the consumer computer and the billing server are connected via a premium communication link.

Remarks accompanying the rejection of Claim 63 read as follows:

> Claim 63 recites a computer-readable medium for supplying the consumer computer with access to the ordered product as discussed above with regard to Claim 38. As such, Claim 63 is rejected on the same grounds.

Applicants respectfully disagree. Initially, it is pointed out that Claim 63, as amended, does not track Claim 38. As amended, Claim 63 recites that providing the billing server with access information comprising an access identification to a designated communication session between the consumer computer and the merchant server, a password for claiming the ordered product, and a locator for the ordered product identifying the location of the ordered product on the merchant server. This subject matter is not taught or suggested by any of the cited and applied references as far as applicants can determine. As a result, applicants respectfully submit that Claim 63 and the claims dependent there from (Claims 64-67) are also allowable.

In view of the foregoing remarks, applicants respectfully submit that all of the claims remaining in this application and rejected in the Office Action, particularly as amended, are

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clearly allowable over the teachings of the cited and applied references. Applicants further submit that new Claims 68-85 are also allowable. Consequently, early and favorable action allowing all of the claims that remain in this application and passing the application to issue is respectfully solicited.

Respectfully submitted,

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Enclosure:
U.S. Application No. 09/064,797 (Specification and Drawings)

I hereby certify that this correspondence is being deposited with the U.S. Postal Service in a sealed envelope as first class mail with postage thereon fully prepaid and addressed to Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the below date.

Date: May 12, 2005 Anne E. Weeden

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METHOD AND APPARATUS FOR ORDERING GOODS AND SERVICES OVER AN INTERNETWORK

Field of the Invention

This invention generally relates to a method and apparatus for allowing a consumer to order goods and services from one or more other computers connected via common communication links and, more specifically, a method and apparatus for allowing a consumer to order goods and services from computers connected to the Internet, wherein the consumer is automatically billed for the ordered good or service by its telephone service provider.

Background of the Invention

Communication networks are well known in the computer communications field. By definition, a network is a group of computers and associated devices that are connected by communications facilities or links. Network communications can be of a permanent nature, such as via cables, or can be of a temporary nature, such as connections made through telephone or radio links. Networks may vary in size, from a local area network (LAN) consisting of a few computers or workstations and related devices; to a wide area network (WAN) which interconnects computers and LANs that are geographically dispersed; to a remote access service (RAS) which interconnects remote computers via temporary communication links. An internetwork, in turn, is the joining of multiple computer networks, both similar and dissimilar, by means of gateways or routers that facilitate data transfer and

conversion from various networks. A well-known abbreviation for the term internetwork is "internet." As currently understood, the capitalized term "Internet" refers to the collection of networks and routers that use the Transmission Control Protocol/Internet Protocol (TCP/IP) to communicate with one another.

A representative section of the Internet 20 is shown in FIGURE 1 (Prior Art) in which a plurality of local area networks (LANs) 24 and a wide area network (WAN) 26 are interconnected by routers 22. The routers 22 are generally special purpose computers used to interface one LAN or WAN to another. Communication links within the LANs may be twisted wire pair, or coaxial cable, while communication links between networks may utilize 56 Kbps analog telephone lines, or 1 Mbps digital T-1 lines and/or 45 Mbps T-3 lines. Further, computers and other related electronic devices can be remotely connected to either the LANs 24 or the WAN 26 via a modem and temporary telephone link. Such computers and electronic devices 28 are shown in FIGURE 1 as connected to one of the LANs 24 via a dotted line. It will be appreciated that the Internet comprises a vast number of such interconnected networks, computers, and routers and that only a small, representative section of the Internet 20 is shown in FIGURE 1.

The Internet has recently seen explosive growth by virtue of its ability to link computers located throughout the world. As the Internet has grown, so has the World Wide Web (WWW). The WWW is a vast collection of interconnected or "hypertext" documents written in HyperText Markup Language (HTML) that are electronically stored at "web sites" throughout the Internet. A web site is a server connected to the Internet that has mass storage facilities for storing hypertext documents and that runs administrative software for handling requests for those stored hypertext documents. A hypertext document normally includes a number of hyperlinks, i.e., highlighted portions of text which link the document to another hypertext document possibly stored at a web site elsewhere on the Internet. Each hyperlink is associated with a Uniform Resource Locator (URL) that provides the exact location of the linked document on a server connected to the Internet and describes the document. Thus, whenever a hypertext document is retrieved from any web server, the document is considered to be retrieved from the WWW.

A consumer is allowed to retrieve hypertext documents from the WWW, i.e., a consumer is allowed to "surf the web," via a web browser. A web browser, such as Netscape's Navigator or Microsoft's Internet Explorer, is a software program implemented by a web client, i.e., the consumer's computer, to provide a graphical

user interface to the WWW. Upon request from the consumer via the web browser, the web client accesses and retrieves the desired hypertext document from the appropriate web server using the URL for the document and a protocol known as HyperText Transfer Protocol (HTTP). HTTP is a higher-level protocol then TCP/IP and is designed specifically for the requirements of the WWW. It is used on top of TCP/IP to transfer hypertext documents between servers and clients.

At the advent of the WWW, the information stored on the Internet was freely transferred back and forth between those parties interested in the information. However, the WWW is quickly becoming a channel of commerce whereby a vast number and array of companies have developed their own web sites for advertising and selling their goods and services. Consumers may "visit the web site" of a company, i.e., retrieve the hypertext documents located on the web server of a particular company, and order any good or service the company has to offer. If that good or service is in the form of electronically stored information, such as a book, a video, a music CD, a computer game, etc., the consumer may simply download the good or service from the company's web site to his or her computer for immediate consumption and use. If the good or service is of a more tangible nature, such as an appliance or article of clothing ordered from an on-line catalog, a more conventional method of delivery, e.g., the postal service, is used. The traditional method of payment for such goods and services has been by major credit card, wherein the consumer is required to transmit his or her credit information over the Internet to the company's web site. However, many question the security and confidentiality of such electronic transmissions. Furthermore, many consumers do not have a major credit card with which to make such purchases. Alternative billing systems, such as providing credit information by facsimile or postal service, are much less convenient and often prove enough of a barrier to prohibit the sale altogether. Finally, the traditional methods of billing and payment do not adequately protect the seller or consumer from fraudulent purchases.

Accordingly, a more effective method and apparatus for ordering and billing for goods and services over a network, and ultimately the Internet, is needed. The method and apparatus should provide for automatic billing to the consumer without the need of a credit card or transferring any sensitive credit information via the Internet. In addition, the consumer should be allowed to use the purchased good or service, if downloaded, only after billing is completed. Finally, the method and

apparatus should prevent consumers with histories of nonpayment from purchasing additional goods and/or services.

Summary of the Invention

The present invention provides a computer program for ordering products from computers connected to the Internet, wherein the consumer is automatically billed for the ordered good or service by its telephone service provider. The billing system comprises a plug-in component and a billing server component. When a consumer orders a product over the Internet, the plug-in component establishes an Internet connection to a billing server located elsewhere on the Internet. In response, the billing server component transfers a transaction I.D. identifying the order to the plug-in component. The plug-in component then disconnects from the Internet and establishes a point-to-point (PPP) connection with the billing server. Once the PPP connection is established, the plug in component transfers the transaction I.D. back to the billing server component. The billing server component then transfers the access key assigned to the order identified by the transaction I.D. to the plug-in component. The consumer uses the access key to claim the ordered product. The consumer is charged for the product automatically by the telephone service provider when the PPP connection is established using a telephone number assigned and administered by the telephone service provider.

In accordance with yet other aspects of the present invention, the billing server component also transfers an encrypted version of the ordered product to the plug-in component before the plug-in components disconnects from the Internet. The plug-in component then uses the access key to decrypt the encrypted version of the product.

A method and an apparatus capable of performing actions generally consistent with the plug-in component and billing server component described above represent further aspects of the present invention.

Brief Description of the Drawings

The foregoing aspects and many of the attendant advantages of this invention will become more readily appreciated as the same becomes better understood by reference to the following detailed description, when taken in conjunction with the accompanying drawings, wherein:

FIGURE 1 (Prior Art) is a block diagram of a representative portion of the Internet;

FIGURE 2 is a pictorial diagram of a local area network (LAN) connected to the Internet which supplies goods and services ordered by a consumer using a computer located elsewhere on the Internet in accordance with the present invention;

FIGURE 3 is a block diagram of the several components of the consumer's computer shown in FIGURE 2 that is used to order goods and services from the Internet in accordance with the present invention;

FIGURE 4 is a block diagram of the several components of a billing server shown in FIGURE 2 that is used to supply the ordered good and/or service and confirm the order of the good and/or service in accordance with the present invention;

FIGURES 5A and 5B are windows produced by a web browser installed on the consumer's computer from which the consumer orders a good and/or service;

FIGURE 6 is a flow chart illustrating the logic used by the consumer's computer to initiate an order of a good and/or service from the Internet;

FIGURES 7A-7C are a flow chart illustrating the logic used by the consumer's computer to complete the order of a good and/or service over the Internet;

FIGURES 8A-8F are various windows produced by the consumer's computer for displaying messages associated with the order of a good and/or service;

FIGURE 9 is a flow chart illustrating the logic used by the billing server connected to the LAN shown in FIGURE 2 to supply the ordered good and/or service to the consumer's computer;

FIGURE 10 is a flow chart illustrating the logic used by the billing server connected to the LAN shown in FIGURE 2 to confirm the order of the good and/or service;

FIGURE 11 is a flow chart illustrating the actions taken by a telephone service provider to automatically bill the consumer for the ordered good and/or service; and

FIGURE 12 is a diagram illustrating the actions taken in parallel by the consumer's computer and the billing server to order and supply the good and/or service.

Detailed Description of the Preferred Embodiment

As previously described and shown in FIGURE 1, the Internet 20 is a collection of local area networks and (LANs) 24, wide area networks (WANs) 26, remote computers 28 and routers 22 that use the Transmission Control Protocol/Internet Protocol (TCP/IP) to communicate with each other. The World

Wide Web (WWW), on the other hand, is vast collection of interconnected, electronically stored information located on servers connected throughout the Internet 20. Many companies are now selling goods and services over the Internet using the WWW. In accordance with the present invention, a consumer orders goods and/or services (referred to interchangeably herein as "products") over the Internet 20 via a web browser and is automatically billed for the purchase on his or her monthly telephone bill. More specifically, the consumer places an order from a computer 42 connected to the Internet 20. The order is then supplied and confirmed by a billing server 34 connected to a LAN 24 located elsewhere in the Internet 20.

The LAN 24 to which the billing server 34 is connected and to which the consumer's computer 42 has established an Internet connection for ordering a product is shown in more detail in FIGURE 2. In addition to the billing server 34, the LAN 24 includes an administrative computer 32 used to administer product, vendor, and purchaser information and services provided by the billing server 34. The LAN 24 also includes an access server 38 equipped with a plurality of high-speed digital modems used to accept temporary telephone links from other computers located in the Internet 20, such as the consumer's computer 42. Finally, LAN 24 includes a personal computer 36 installed with a computer supported telephony application (CSTA), which is a standard protocol used to interface the computer 36 with a telephone switch 40.

As will be described in more detail below, after the consumer places an order using the computer 42 via the Internet 20, the consumer's computer disconnects from the Internet 20 and establishes a point-to-point (PPP) connection with the billing server 34 to confirm the purchase. More specifically, the consumer's computer places a telephone call to a number assigned to the telephone switch 40. The telephone switch routes the telephone call to the access server 38, whose modems answer the telephone call and notify the billing server 34 that a TCP/IP connection to the consumer's computer 42 has been established. Meanwhile, the CSTA monitor 36 which monitors the telephone switch 40 also notifies the billing server 34 that the telephone call has been made, thus completing the PPP connection between the billing server 34 and the consumer's computer 42.

In the actual embodiment of the present invention shown in FIGURE 2, the LAN 24 is insulated from the Internet 20 by a firewall server 30 which tracks and controls the flow of all data passing through it using the TCP/IP protocol. The firewall 30 protects the LAN 24 from malicious in-bound data traffic. The LAN 24

is a bus network interconnecting the various computers and servers. The LAN 24 shown in FIGURE 2 can be formed of various coupling media such as glass or plastic fiberoptic cables, coaxial cables, twisted wire pair cables, ribbon cables, etc. In addition, one of ordinary skill in the art will appreciate that the coupling medium can also include a radio frequency coupling media or other intangible coupling media. Any computer system or number of computer systems, including but not limited to workstations, personal computers, laptop computers, servers, remote computers, etc., that is equipped with the necessary interface hardware may be connected temporarily or permanently to the LAN 24, and thus, the Internet 20. However, if temporarily connected via a telephone link to another device connected to the LAN 24, the interface hardware of both the remote computer 28 and the device to which it is connected must contain a modem. Finally, those of ordinary skill in the art will recognize that while only one consumer computer 42 and only one billing server 34 are depicted in FIGURE 2, numerous consumer computers and billing servers equipped with the hardware and software components described below may be connected to the Internet 20.

Relevant Consumer Computer and Billing Server Components

FIGURE 3 depicts several of the key components of the consumer's computer 42. Those of ordinary skill in the art will appreciate that the consumer's computer 42 includes many more components then those shown in FIGURE 3. However, it is not necessary that all of these generally conventional components be shown in order to disclose an illustrative embodiment for practicing the present invention. As shown in FIGURE 3, the consumer's computer includes a network interface 44 for connecting to a LAN 24 or WAN 26, or for connecting remotely to a LAN or WAN. Those of ordinary skill in the art will appreciate that the network interface 44 includes the necessary circuitry for such a connection, and is also constructed for use with the TCP/IP protocol, the particular network configuration of the LAN or WAN it is connecting to, and a particular type of coupling medium.

The consumer's computer 42 also includes a processing unit 46, a display 48, a modem 49 and a memory 50. The memory 50 generally comprises a random access memory (RAM), a read-only memory (ROM) and permanent mass storage device, such as a disk drive. The memory 50 stores the program code and data necessary for ordering a product over the Internet 20 in accordance with the present invention. More specifically, the memory 50 stores a plug-in component 52 formed in accordance with the present invention for ordering products. The memory 50 also

includes a web browser 51, such as Netscape's Navigator or Microsoft's Internet Explorer.

As will be described in more detail below, the products ordered by the consumer are supplied by a remote server, i.e., the billing server 34 located elsewhere on the Internet, e.g., in LAN 24 illustrated in FIGURE 2. FIGURE 4 depicts several of the key components of the billing server 34. Those of ordinary skill in the art will appreciate that the billing server 34 includes many more components then those shown in FIGURE 4. However, it is not necessary that all of these generally conventional components be shown in order to disclose an illustrative embodiment for practicing the present invention. As shown in FIGURE 4, the billing server 34 is connected to the LAN 24 via a network interface 54. Those of ordinary skill in the art will appreciate that the network interface 54 includes the necessary circuitry for connecting the billing server 34 to the LAN 24 and the firewall 30, and is constructed for use with the TCP/IP protocol, the bus network configuration of the LAN 24, and the particular type of coupling medium.

The billing server 34 also includes a processing unit 56, a display 58, and a mass memory 60. The mass memory 60 generally comprises a random access memory (RAM), read-only memory (ROM), and a permanent mass storage device, such as a hard disk drive, tape drive, optical drive, floppy disk drive, or combination thereof. The mass memory 60 stores the program code and data necessary for supplying products to consumers in accordance with the present invention. More specifically, the mass memory 60 stores a billing server component 62 formed in accordance with the present invention for supplying the ordered products and confirming the order of products. In addition, mass memory 60 stores a database 64 of product information continuously logged by the billing server 34 regarding vendors, consumers and products. It will be appreciated by those of ordinary skill in the art that the database 64 of product and logged information may also be stored on other servers or storage devices connected to the LAN 24. Finally, mass memory 60 stores web server software 66 for handling requests for stored information received via the Internet 20 and the WWW.

Ordering Goods and Services

Consumer computers, such as computer 42, are normally provided with a web browser 51 such as Netscape's Navigator to provide the consumers with a graphical consumer interface to the Internet and the WWW. FIGURE 5A illustrates the consumer's computer 42 that implements such a web browser 51. The consumer's

computer comprises a display or monitor 72, a keyboard 74, a mouse 76, and a main unit 78 that includes the components discussed above in connection with FIGURE 3. Monitor 72 includes a screen 73 on which elements of the web browser 51 are displayed. Such elements include a main window 80 for displaying hypertext documents requested by the consumer and a graphics cursor 82.

In accordance with the present invention, a consumer may visit a company's web site using the web browser 51 and retrieve a hypertext document from which the consumer may order products. For example, a consumer using computer 42 and web browser 51 may retrieve the hypertext document shown in the main window 80 of FIGURE 5A from a book store web site known hypothetically as "Albert's Book Emporium." The consumer makes a selection of a particular product by manipulating the graphics cursor 82 with the mouse 76 above the selection and "single-clicking." In response, an ordering window 70 is displayed on the screen 73 of the client's computer 42 as shown in FIGURE 5B. The ordering window 70 displays to the consumer yet another hypertext document which includes various payment options, i.e., major credit cards with electronic transmission of credit information or facsimile transmission of credit information. However, in accordance with the present invention, an automatic billing icon 68 is also displayed as a payment option. As will be described in more detail below, if the consumer selects the automatic billing icon 68, the consumer will be billed automatically for the ordered product on his or her next monthly telephone bill.

FIGURE 6 illustrates the logic implemented by the web browser 51 installed on the client's computer 42 when the automatic billing icon 68 is selected. The logic begins in a block 100 and proceeds to a block 102 where the web browser 51 determines if the plug-in component 52 of the present invention has been installed on the client's computer 42. If not, the client's computer downloads the plug-in 52 from the billing server 34 via the Internet 20 and installs the plug-in 52 in memory 50 in a block 104. If the plug-in 52 is already installed on the client's computer 42 or if it was not installed, but then loaded, the logic proceeds to a block 106 where the plug-in component 52 is initialized by the client's computer 42. The logic then ends in a block 108. Those of ordinary skill in the art will appreciate that the plug-in 52 of the present invention is downloaded, installed and initialized on the client's computer using methods well-known in the computer network arts.

Once the plug-in 52 is initialized, the plug-in 52 performs the logic depicted in FIGURES 7A-7C to place the consumer's order with the billing server 34. The

logic begins in FIGURE 7A in a block 120 and proceeds to a block 122 in which the client's computer 42 establishes an Internet connection to the billing server 34. Next, in a block 124, the plug-in 52 displays a purchase confirmation window 84 as shown in FIGURE 8A on the screen 73 of the client's computer 42. The confirmation window 84 confirms the consumer's purchase and provides the consumer with the opportunity to cancel the purchase. If the consumer enters "OK" the logic will continue to a block 126 where the plug-in transfers to the billing server 34 via the Internet 20 a product I.D. uniquely identifying the product ordered to the billing server 34 and a purchaser I.D. assigned to the consumer. As will be described in more detail below, the consumer is assigned a purchaser I.D. the first time it places an order with the billing server 34. Hence, if this is the first time that the consumer has placed an order, the consumer will not have been assigned a purchaser I.D. and no such I.D. will be transferred in block 126.

After transferring the purchaser I.D. and product I.D. to the billing server 34, the plug-in 52 waits for the billing server 34 to transfer to the consumer's computer 42 a transaction I.D. which identifies the consumer, the product ordered by the consumer (by product I.D.), and the billing server 34 supplying the order (as noted above, there may be more than one billing server located elsewhere on the Internet 20). As will be described in more detail below, the transaction I.D. will be used later to verify the consumer's order. If the transaction I.D. has not yet been received by the consumer's computer 42, the plug-in 52 merely repeats decision block 128 (i.e., essentially waits) until the transaction I.D. is received from the billing server 34. Once received, the plug-in 52 displays a directory prompt window 86 as shown in FIGURE 8B which prompts the consumer for a network or local directory on the consumer's computer 42 in which to store the product that the consumer has purchased. After entering the directory in which the consumer wishes to save the product that it has purchased, the logic proceeds to a block 132 where the consumer's computer 42 begins receiving an encrypted version of the product transferred by the billing server 34. However, as will be discussed in more detail below, the consumer is not allowed to decrypt the product until the consumer has actually been billed for the product. In this regard, the billing server 34 also transfers, and the consumer's computer 42 also receives, a telephone number that the consumer's computer 42 uses to establish a PPP connection to the billing server 34 and obtain an access key for decrypting the product.

While the encrypted product is being downloaded via the Internet 20, the plug-in 52 displays a download transaction status window 88 as shown in FIGURE 8C on the screen 73 of the consumer's computer 42 which indicates the changing status of the download to the consumer. Next, in a decision block 136, the plug-in 52 determines if the entire encrypted product has finally been received. If not, the logic repeats blocks 134 and 136 until the encrypted product has been completely downloaded to the consumer's computer 42.

Once downloading of the encrypted product is complete, the plug-in 52 displays in a block 137, an authorization transaction window 89 as shown in FIGURE 8D. Once the consumer depresses the OK button indicating authorization of the order, the plug-in 52 disconnects the consumer's computer 42 from the Internet 20 in a block 138 in FIGURE 7B. Next, in a block 140, the plug-in 52 supplies the telephone number provided by the billing server 34 to the modem 49 of the computer 42 and the modem dials the number in order to establish a PPP connection to the billing server 34. In the actual embodiment of the present invention described herein, the telephone number provided by the billing server 34 and dialed by the modem 49 of the consumer's computer 42 is a "900 number," i.e., a ten digit number having with a 900 area code, assigned by the billing server's telephone service provider. As those of ordinary skill in the telephone switching arts will appreciate, the 900 area code has been generally reserved for commercial purposes, wherein the consumer is generally charged a flat rate, or a particular rate per minute for a telephone call, and a portion of that charge is paid by the telephone service provider to the vendor to whom the 900 number is assigned. It will be recognized, however, that other types of telephone numbers may be used and, in fact, mandated by the telephone service provider without departing from the scope of the present invention.

The telephone call placed by the modem 49 is answered by the telephone switch 40 connected to the CSTA monitor 36 of the LAN 24. The telephone switch 40 routes the telephone call to the access server 38, which notifies the billing server 34. Accordingly, the consumer's computer 42 establishes a PPP connection via the telephone switch 40 and access server 38 with the billing server 34. While this connection is being established, the plug-in 52 displays an authorization window 90 as shown in FIGURE 8E on the screen 73 of the consumer's computer 42 which indicates the changing status of the connection to the billing server 34 in a block 142.

Once the PPP connection between the consumer's computer 42 and the billing server 34 is fully established, the plug-in 52 transfers the previously assigned transaction I.D. to the billing server 34 so that the billing server 34 may verify the order in a block 144. It will be recognized that many consumers may be placing orders simultaneously, and hence, many computers located elsewhere on the Internet 20 may be establishing PPP connections with the billing server 34 at any given time. Therefore, the transaction I.D. is necessary so that the billing server 34 may identify the consumer and the order placed by the consumer, and supply the plug-in 52 installed on the consumer's computer 42 with the appropriate access key for decrypting the previously sent product. In other words, the transaction I.D. serves a type of claim ticket used by the consumer to claim the correct access key once billing is complete.

Next, in a block 146, the plug-in 52 begins downloading the appropriate access key for the decrypting the product. As will be described in more detail below, as long as the billing server 34 receives the transaction I.D. from the plug-in 52 within a certain time period (i.e., the free period at the beginning of a 900 telephone call during which the caller can hang-up without being charged), the billing server 34 will transfer the appropriate access key for decrypting the encrypted product. Otherwise, the PPP connection between the consumer's computer 42 and the billing server 34 is terminated and the consumer is not billed for the telephone call or the product.

While waiting for the access key, the plug-in 52 displays another authorization window 90 in a block 148 which notifies the consumer of the status of the download of the access key. In a decision block 150, the logic determines if the consumer's computer 42 has finally received the access key. If not, blocks 148 and 150 are merely repeated until the access key is received. Once received, the plug-in 52 ends the telephone call, and hence, terminates its PPP connection with the billing server 34 in a block 152.

After terminating the PPP connection with the billing server 34, the plug-in 52 begins decryption of the encrypted product using the access key in a block 154. In a block 156, the plug-in 52 displays another authorization window 90 notifying the consumer that decryption of the product is in progress in a block 156. Accordingly, in a decision block 158 the plug-in determines if the product has been fully decrypted. If not, blocks 156 and 158 are merely repeated until the product has been fully decrypted. Once fully decrypted, the logic proceeds to a block 160 shown in

FIGURE 7C where the plug-in 52 deletes the encrypted product from memory 50 of the client's computer in an effort to save space. Next, in a block 162, the plug-in 52 depicts a transaction completed window 91 on the screen 73 of the consumer's computer 42 as shown in FIGURE 8F. The consumer is then provided the option in the transaction completed window 91 to reconnect to the Internet via its normal Internet service provider. The logic for the plug-in 52 then ends in a block 164.

Now that the logic implemented by the plug-in component 52 has been discussed, it is necessary to describe the billing server component 62 implemented by the billing server 34 to supply the encrypted product and access key to the consumer's computer 42. As shown in FIGURE 9, the logic implemented by the billing server component 62 to supply the encrypted product begins in a block 170 and proceeds to a decision block 172 where it determines whether the connection between the consumer's computer 42 and the billing server 34 has been established via the Internet 20. If not, decision block 172 is merely repeated until such a connection has been established. Next, in a decision block 173, the billing server component determines if the product I.D. has been received from the consumer's computer 42. If not, decision block 173 is repeated until the product I.D. has been received.

Once the product I.D. has been received, the billing server component 62 determines if the consumer is new in a decision block 174, i.e., if this is the first time this consumer has placed an order. If this is the first time the consumer has placed an order, then the plug-in 52 will be unable to provide the billing server 34 with a purchaser I.D. for the consumer. Accordingly, the billing server component 62 assigns the consumer a purchaser I.D. in a block 176 and transfers the purchaser I.D. to the consumer's computer 42 in a block 178. As noted above, the plug-in 52 will return this purchaser I.D. each subsequent time the consumer places an order. The purchaser I.D. is logged in the product and information database 64 of the billing server and is used for accounting and recordkeeping purposes, such as payment histories, customer demographics, etc.

If the consumer is not a first-time buyer or, is a first-time buyer and thus, has been assigned a purchaser I.D., the logic proceeds to a decision block 180 where the billing server component 62 determines whether an order by this particular consumer should be denied. More specifically, the billing server 34 determines whether the purchaser I.D. is blocked. It will be appreciated that over the course of time, certain consumers may fail to pay their telephone bills, which include the charges for the

orders placed using the present invention. A log of such purchaser I.D.s will be maintained in the database of product and logged information 64 in mass memory 60 of the billing server 34. If the purchaser I.D. of the consumer placing the order matches one of the logged purchaser I.D.s, the consumer will be prevented from placing its order and notified appropriately in a block 182. Such notification may include a message displayed on the screen 73 of the consumer's computer 42 followed by termination of the PPP connection between the billing server 34 and the consumer's computer 42 in a block 183. The logic then ends in a block 184. On the other hand, if the consumer is not blocked by purchaser I.D. in decision block 180, the logic proceeds to a block 186 where the billing server 34 assigns a transaction I.D. to the order and transfers the transaction I.D. to the consumer's computer 42. The transaction I.D. identifies the consumer, the product ordered (by product I.D.) and the billing server 34. As noted above, the plug-in 52 installed on the consumer's computer 42 waits for this transaction I.D. before prompting the consumer for a directory in which to store the product it has ordered.

After transferring the transaction I.D. to the consumer's computer 42, the billing server component 62 locates the product ordered by the consumer and encrypts it in a block 188. It will be appreciated by those of ordinary skill in the art that the product may be stored in the database 64 of product information located in mass memory 60 of the billing server 34 or it may be located on a server located elsewhere in the Internet. If the product is located elsewhere, the billing server 34 will establish an Internet connection with the corresponding server and download the ordered product. It will also be appreciated that the product, whether located in mass memory 60 of the billing server 34 or elsewhere on the Internet 20, may be pre-encrypted. Therefore, it may not be necessary for the billing server component 62 to encrypt the product itself.

Next, in a block 190, the billing server component 62 stores the encrypted product in a working directory in mass memory 60 of the billing server 34 as a precursor to transferring it to the client's computer 42. In a block 192, the billing server component 62 selects an access key, i.e., password, for decrypting the encrypted product stored in the working directory. It will be appreciated that the billing server component 62 may select the access key from a predefined list stored in the database 64 of product and logged information, or the billing server component 62 may generate an access key at random or using various other selection algorithms. Once the access key has been selected by the billing server

component 62, the billing server 34 transfers the encrypted product to the consumer's computer 42 as well as the telephone number that the plug-in 52 will use to establish a PPP connection with the billing server 34 so that billing can be performed and the access key may be provided to the plug-in 52. The logic then ends in a block 196.

The logic employed by the billing server component 62 to confirm completion of billing for a placed order, and thus, supply the plug-in 52 with the access key is depicted in FIGURE 10. The logic begins in FIGURE 10 in a block 200 and proceeds to a decision block 202 where the billing server component 62 determines if a PPP connection has been established to the billing server 34 by any consumer computer 42 installed with a plug-in 52. As noted above, many consumers may be placing orders at any given time, and hence, many computers may be attempting to establish a PPP connection to the billing server 34 so that they may obtain the appropriate access key for decrypting their ordered product. Hence, decision block 202 is repeated until such a connection has been established.

Once a PPP connection has been established, the logic proceeds to a decision block 204 where the billing server component 62 determines whether or not the order placed by the consumer should be denied by determining whether the purchaser I.D. assigned to the consumer and transferred to the billing server 34 by the plug-in 52 is blocked. If so, the consumer is appropriately notified, e.g., by a message displayed on the screen 73 of the consumer's computer 42, in a block 206. Accordingly, the billing server component 62 ends the telephone call and terminates the PPP connection with the consumer's computer 42. It will be appreciated from the discussion below, if the telephone call is ended at this time, i.e., before the expiration of the free period, the consumer will not be billed for the order placed. The logic then ends in a block 210.

If the order is not denied based on purchaser I.D., the logic proceeds to a decision block 212 where it determines if the order should be denied based on the consumer's telephone number (i.e., the telephone number from which the modem 49 of the consumer's computer is making the telephone call to the billing server 34) in a decision block 212. In one actual embodiment of the present invention, a list of telephone numbers is maintained by the CSTA monitor 36 of all consumers who have not paid their monthly telephone bills for ordered products or who have indicated that all purchases attempted from their telephone number should be denied. If the order is to be denied based on the consumer's telephone number, the CSTA

monitor 36 automatically provides a busy signal to the modem 49 of the consumer's computer 42 in a block 206. Next, in a block 208, the telephone call made by the modem 49 of the consumer's computer, and hence the PPP connection to the billing server 34 is terminated. The logic then ends in a block 210.

Returning to decision block 212, if the order is permitted, the logic proceeds to a decision block 214 in which the billing server component 62 determines if it has received the transaction I.D. from the plug-in 52. If not, the logic proceeds to another decision block 216 in which the billing server component 62 determines if the free period has almost expired. As noted above and described in more detail below, this free period is the time interval at the beginning of a 900 telephone call during which the consumer can hang up and not be charged for the telephone service by the telephone service provider. By default, the free period is normally 18.9 seconds. However, the free period is dictated by the telephone service provider, and hence, may vary accordingly. During the free period, the plug-in 52 may display a message, which informs the consumer that they may hang up and not be charged for the telephone call or the product. If the transaction I.D. is not received from the plug-in 52 during the free period, the billing server component 62 will automatically terminate the telephone call in a block 208, so that the consumer is not erroneously charged for the telephone call. Consequently, the logic ends in a block 210.

If the transaction I.D. is received, with time to spare, the logic proceeds from decision block 214 to a decision block 217 where the billing server component 62 determines if the free period has expired. In other words, once the billing server 34 has received the transaction I.D. from the plug-in 52, the billing server component 62 merely waits for the free period to expire. Once expired, the telephone service provider bills the consumer for the ordered product as will be discussed in more detail below and the billing server component 62 transfers the access key assigned to the order identified by the transaction I.D. to the consumer's computer 42 so that the plug-in 52 can decrypt the product previously provided by the billing server component 62. The logic then ends in a block 219.

Now that the plug-in and billing server components of the present invention have been described, the actions provided by the telephone service provider in order to automatically bill the consumer for the ordered product are discussed in more detail in connection with FIGURE 11. The flow diagram begins in a block 220 and proceeds to a block 222 where the telephone service provider routes the telephone call made by the modem 49 of the consumer's computer 42 to the telephone

switch 40 connected to the CSTA monitor 36 of the LAN 24. Once the telephone switch 40 answers the call, the telephone service provider waits for the free period described above to expire in a block 224 before it bills the consumer for the order in a block 226. In the meantime, either the consumer's computer 42 or the billing server 34 may terminate the telephone call and prevent billing for the order. Once the free period has expired, however, the telephone service provider bills the consumer for the ordered product using its own internal accounting and billing procedures. Consequently, the charge for the product and the telephone call will appear on the consumer's next monthly telephone bill for the telephone number from which the modem 49 of the consumer's computer 42 made the telephone call to the billing server 34. In a block 228, the telephone service provider collects payment for the telephone call and the ordered product from the consumer via its normal collection processes. Once the telephone service provider has collected payment for the call, the telephone service provider pays a service charge to the provider of the billing server 34 in a block 230. This service charge can be a flat rate or can be a percentage of each order placed.

FIGURE 12 is an overall diagram depicting the actions of the plug-in 52/consumer's computer 42 and the billing server component 62/billing server 34 in parallel. Consequently, FIGURE 12 depicts the consumer's computer 42 establishing an Internet connection to the billing server 34. The consumer's computer 42 then transfers the product I.D. of the ordered product to the billing server 34. In response, the billing server 34 transfers a transaction I.D. for the order to the consumer's computer 42. The billing server 34 also transfers the encrypted product and a telephone number for establishing a PPP connection to the billing server 34 to the consumer's computer 42. Once the consumer's computer 42 has received the transaction I.D. and the encrypted product, the consumer's computer 42 disconnects from the Internet 20 and dials the telephone number transferred by the billing server 34 in order to obtain the access key for decrypting the product. Once the PPP connection with the billing server 34 is established, the consumer's computer 42 transfers the transaction I.D. back to the billing server 34 so that the billing server component 64 may identify the order and match the transaction I.D. to the access key assigned to that transaction. Accordingly, the billing server transfers the appropriate access key to the consumer's computer so that the plug-in 52 may decrypt the product. It is readily apparent from FIGURE 12 that the plug-in 52 is only able to decrypt the ordered product and thus, the consumer is only able to use

the product, once the access key has been provided, which necessarily requires that the consumer's computer make a telephone call that is billed by the telephone service provider to the consumer's telephone service account.

While the preferred embodiment of the present invention has been illustrated and described, it will be appreciated that various changes can be made therein without departing from the spirit and scope of the invention. For example, the billing system of the present invention may be used to order products that are not electronically stored and delivered. Rather, the products are delivered by some other method, e.g., postal service, express package service, etc. In such cases, instead of providing the plug-in 52 with an encrypted product and an access key for decrypting the encrypted product, the consumer is provided with an access key or claim number that must be presented upon delivery of the product so that the consumer may claim the product. The billing system of the present invention may also be used to order products that may be used by the consumer only for a predetermined time period. For example, the consumer may purchase an hour of computer game time. In such cases, the consumer is not allowed to begin play of the game until provided an access key, which is then returned to the computer game provider.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A method for ordering a product over an internetwork of computer systems, wherein the product is ordered from a computer connected to the internetwork and supplied by a server connected to the internetwork, the method comprising:

(a) establishing a connection between the computer and the server via the internetwork of computer systems;

(b) transferring a transaction identification from the server to the computer, wherein the transaction identification identifies the product ordered and the computer ordering the product;

(c) terminating the connection between the computer and the server via the internetwork of computer systems;

(d) establishing a direct connection between the computer and the server;

(e) transferring the transaction identification from the computer to the server to identify the product ordered and the computer ordering the product; and

(f) transferring an access key assigned to the product ordered and the computer ordering the product from the server to the computer that is used to claim the product ordered by the computer.

2. The method of Claim 1, further comprising:

(a) while the computer is connected to the server via the internetwork of computer systems, transferring an encrypted version of the product from the computer to the server; and

(b) after transferring the access key from the server to the computer, claiming the product ordered by the computer by decrypting the encrypted version of the product using the access key.

3. The method of Claim 1, wherein the direct connection between the computer and the server is established via a telephone link administered by a telephone service provider so that when the direct connection between the computer and the server is established, the telephone service provider automatically charges for the telephone link and the product ordered.

4. The method of Claim 3, wherein the telephone link is associated with a 900 telephone number.

5. The method of Claim 1, wherein the connection between the computer and the server via the internetwork of computer systems is terminated before the transaction identification is transferred, if the order of the product is denied.

6. The method of Claim 1, wherein the access key is generated at random.

7. The method of Claim 1, wherein the access key is selected from a list of predetermined access keys.

8. The method of Claim 1, wherein the direct connection between the computer and the server is terminated before the access key is transferred if the order of the product is denied.

9. The method of Claim 3, wherein the direct connection between the computer and the server is terminated before the access key is transferred if the transaction identification is not transferred from the computer to the server within a predetermined time interval.

10. An apparatus for ordering a product from a plurality of computers and servers connected to form an internetwork, the apparatus comprising:

(a) a consumer's computer comprising a processing unit and a storage medium, the storage medium containing program code executed by the processing unit for placing an order for the product; and

(b) a billing server comprising a processing unit and a storage medium, the storage medium containing program code executed by the processing unit for responding to the order for the product placed by the consumer's computer.

11. The apparatus of Claim 10, wherein the program code executed by the processing unit of the consumer's computer places an order for the product by:

(a) establishing a connection to the billing server via an internetwork communication link; and

(b) transferring the order to the billing server via the internetwork communication link.

12. The apparatus of Claim 11, wherein the program code executed by the processing unit of the billing server responds to the order for the product placed by the consumer's computer by transferring a transaction identification to the consumer's computer via the internetwork communication link, which identifies the order placed by the consumer's computer.

13. The apparatus of Claim 12, wherein the program code executed by the processing unit of the consumer's computer further places the order by:

(a) terminating the connection to the billing server via the internetwork communication link after the transaction identification has been received from the billing server;

(b) establishing a connection to the billing server via a telephone link; and

(c) transferring the transaction identification back to the billing server via the telephone link.

14. The apparatus of Claim 13, wherein the program code executed by the processing unit of the billing server further responds to the order placed by the consumer's computer by transferring an access key assigned to the order placed by the consumer's computer after the billing server receives the transaction identification identifying the order placed from the consumer's computer.

15. The apparatus of Claim 14, wherein the program code executed by the processing unit of the billing server further responds to the order for the product placed by the consumer's computer by transferring an encrypted version of the product to the consumer's computer via the internetwork communication link before the consumer's computer terminates the connection to the billing server via the internetwork communication link.

16. The apparatus of Claim 15, wherein the program code executed by the processing unit of the consumer's computer further places the order by decrypting the encrypted version of the product using the access key transferred to the consumer's computer by the billing server via the telephone link.

17. The apparatus of Claim 13, wherein the consumer is automatically billed for the order placed by the consumer's computer by the telephone service provider of the telephone link.

18. The apparatus of Claim 17, wherein the consumer's computer dials a 900 telephone number to establish the telephone link.

19. The apparatus of Claim 12, wherein the program code executed by the processing unit of the billing server further responds to the order placed by the consumer's computer by terminating the connection between the computer and the server via the internetwork communication link before the transaction identification is transferred to the consumer's computer if orders placed by the consumer are to be denied.

20. The apparatus of Claim 14, wherein the program code executed by the processing unit of the billing server further responds to the order placed by the consumer's computer by terminating the connection between the consumer's computer and the billing server via the telephone link before the access key is transferred to the consumer's computer if orders placed by the consumer are to be denied.

21. A computer-readable medium having a computer-executable component for ordering a product from a plurality of computers and servers connected to form an internetwork, the computer-executable component comprising a plug-in component for ordering a product from the plurality of computers and servers connected to form the internetwork, wherein the plug-in component places an order for the product by:

(a) establishing an internetwork communication link with a server connected to the internetwork which provides the product ordered;

(b) obtaining a transaction identification which identifies the order from said server;

(c) disconnecting the internetwork communication link with said server;

(d) establishing a telephone communication link with said server;

(e) transferring the transaction identification to said server to identify the order placed; and

(f) obtaining an access key assigned to the order identified by the transaction identification which is used to claim the ordered product.

22. The computer-readable medium of Claim 21 having a further computer-executable component comprising a billing component for verifying the order placed by the plug-in component, wherein the billing component verifies the order placed by:

(a) providing the transaction identification to the plug-in component once the internetwork communication link with said server connected to the internetwork is established by the plug-in component; and

(b) providing the access key to the plug-in component once the telephone communication link with said server is established by the plug-in component.

23. The computer-readable medium of Claim 22, wherein the billing component also provides the plug-in component with an encrypted version of the product ordered before the plug-in component disconnects the internetwork communication link with said server.

24. The computer-readable medium of Claim 23, wherein the plug-in component decrypts the encrypted version of the product ordered with the access key provided by the billing component.

25. The computer-readable medium of Claim 21, wherein the telephone communication link is associated with a 900 telephone number.

26. The computer-readable medium of Claim 21, wherein the telephone communication link established by the plug-in component is administered by a telephone service provider which bills for the product ordered via the telephone communication link.

27. A computer-readable medium having a computer-executable component for fulfilling an order for a product placed by a computer connected to an internetwork of computers and servers, the computer-executable component comprising a billing component which fulfills the order by:

(a) providing said computer a transaction identification assigned to the order after an internetwork connection with said computer is established; and

(b) providing said computer an access key assigned to the order identified by the transaction identification after a point-to-point connection with said computer is established and after said computer returns the transaction identification.

28. The computer-readable medium of Claim 27 having a further computer-executable component comprising a plug-in component for placing the order for the product, wherein the plug-in component places the order for the product by:

(a) establishing the internetwork connection with said computer;

(b) receiving the transaction identification provided by the billing component;

(c) disconnecting the internetwork connection with said computer;

(d) establishing the point-to-point connection with said computer;

(e) returning the transaction identification to the billing component; and

(f) receiving the access key assigned to the order identified by the transaction identification which is used to claim the ordered product.

29. The computer-readable medium of Claim 28, wherein the billing component also provides said computer with an encrypted version of the product ordered before the plug-in component disconnects the internetwork connection with said computer.

30. The computer-readable medium of Claim 29, wherein the plug-in component decrypts the encrypted version of the product with the access key provided said computer by the billing component.

31. The computer-readable medium of Claim 27, wherein the telephone communication link is associated with a 900 telephone number.

32. The computer-readable medium of Claim 27, wherein the telephone communication link established by the plug-in component is administered by a telephone service provider which bills for the product ordered via the telephone communication link.

METHOD AND APPARATUS FOR ORDERING GOODS AND SERVICES OVER AN INTERNETWORK

Abstract of the Disclosure

A billing system is provided that allows a consumer to order products from computers connected to the Internet, wherein the consumer is automatically billed for the ordered good or service by its telephone service provider. The billing system comprises a plug-in component (52) and a billing server component (62). When a consumer orders a product over the Internet (20), the plug-in component (52) establishes an Internet connection to a billing server (34) located elsewhere on the Internet (20) to order the product. In response, the billing server component (62) of the billing server (34) transfers a transaction I.D. identifying the order to the plug-in component (52), as well as an encrypted version of the product to the plug-in component (52). The plug-in component (52) then disconnects from the Internet (20) and establishes a point-to-point (PPP) connection with the billing server (34). Once the PPP connection is established, the plug in component (52) transfers the transaction I.D. back to the billing server component (62). The billing server component (64) then transfers the access key assigned to the order identified by the transaction I.D. to the plug-in component (52) so that the plug-in component (52) may decrypt the product. The consumer is charged for the product automatically by the telephone service provider when the PPP connection is established using a telephone number assigned and administered by the telephone service provider.

(PRIOR ART)

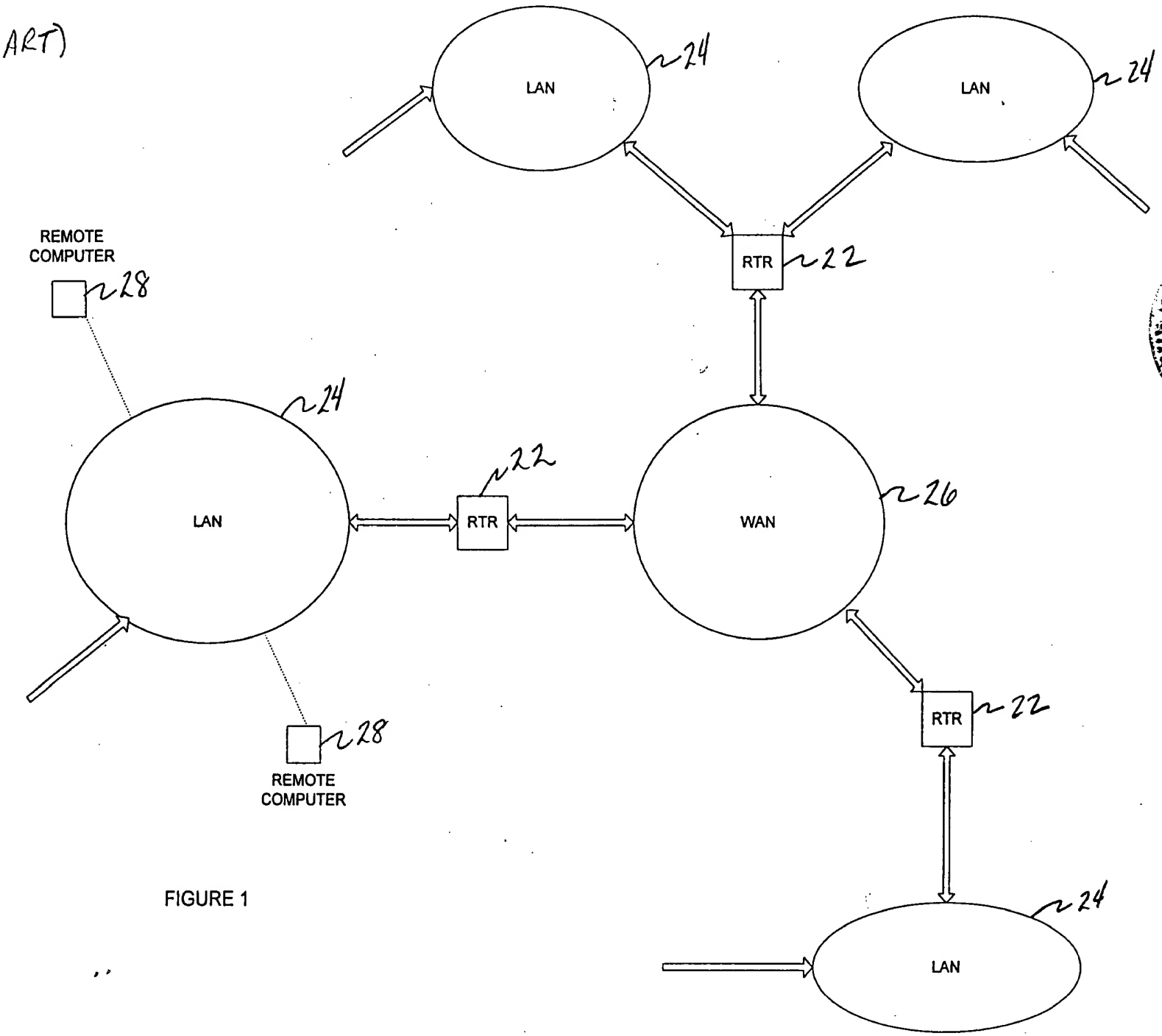

FIGURE 1

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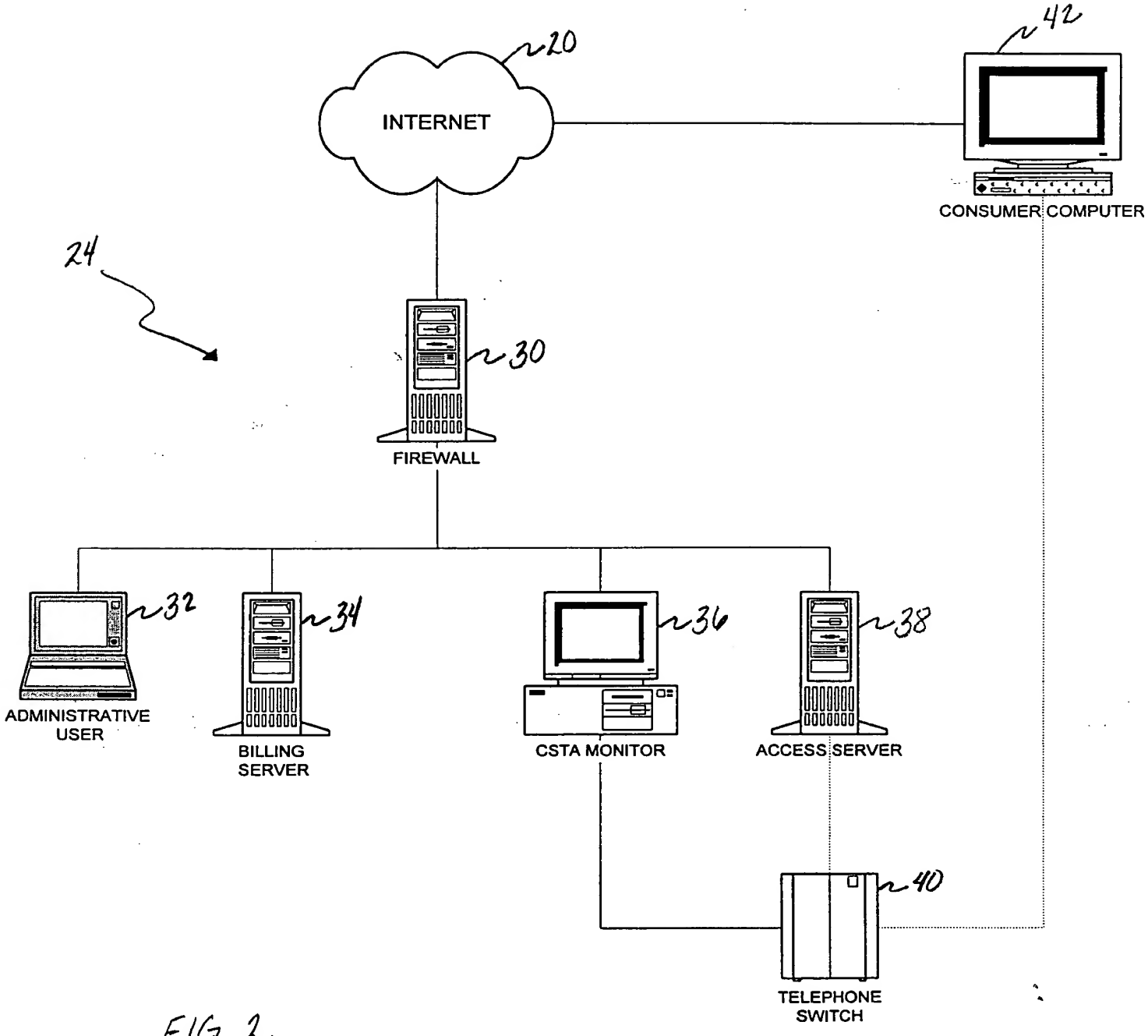

42
20
INTERNET
CONSUMER COMPUTER
24
30
FIREWALL
32
34
36
38
ADMINISTRATIVE USER
BILLING SERVER
CSTA MONITOR
ACCESS SERVER
40
TELEPHONE SWITCH

FIG. 2

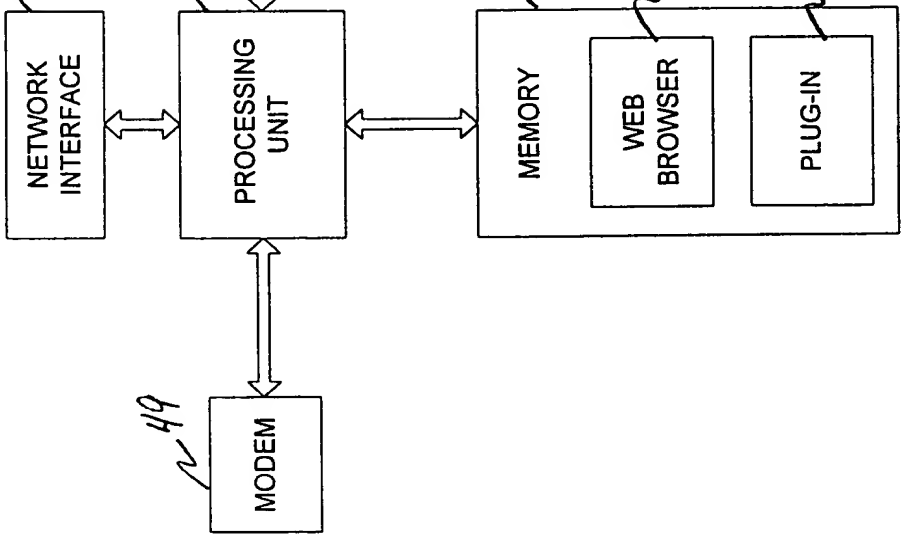


FIGURE 3

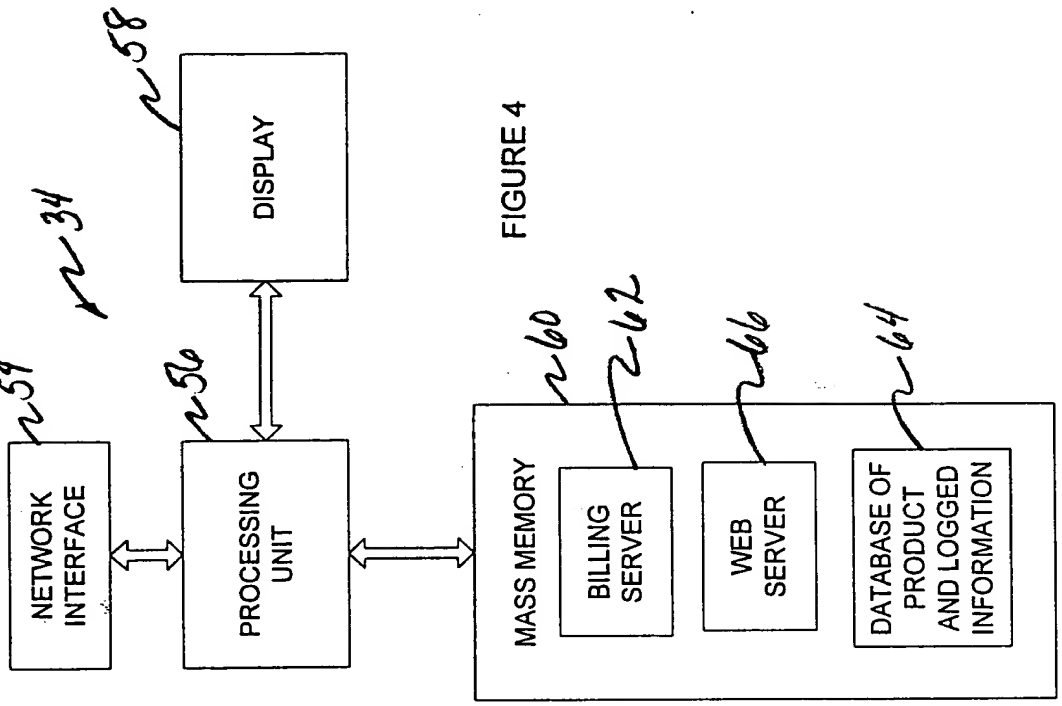


FIGURE 4

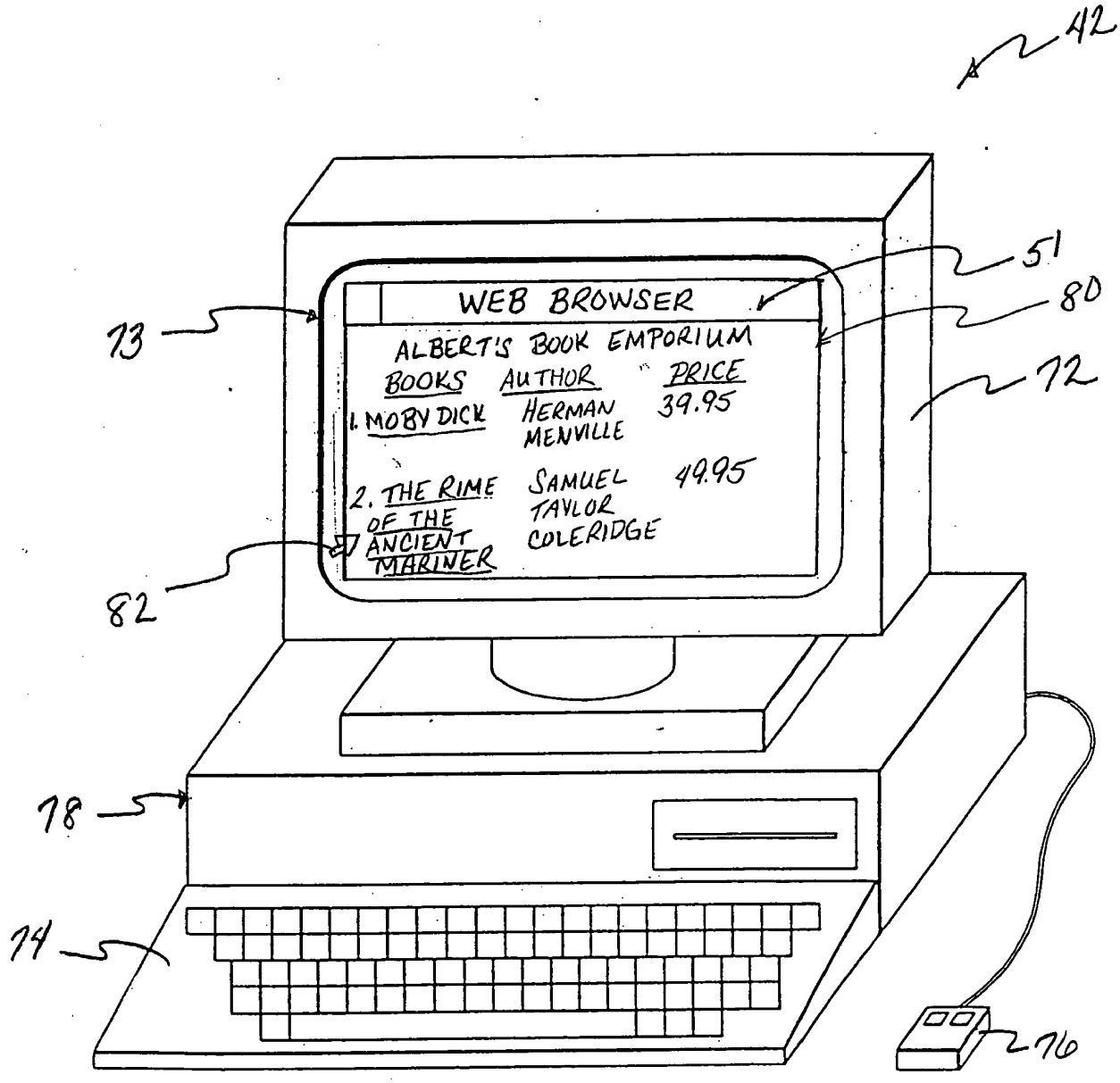

42
51
80
72
73
82
78
74
76
WEB BROWSER
ALBERT'S BOOK EMPORIUM
BOOKS
AUTHOR
PRICE
1. MOBY DICK
HERMAN MENVILLE
39.95
2. THE RIME OF THE ANCIENT MARINER
SAMUEL TAYLOR COLERIDGE
49.95

FIG. 5A

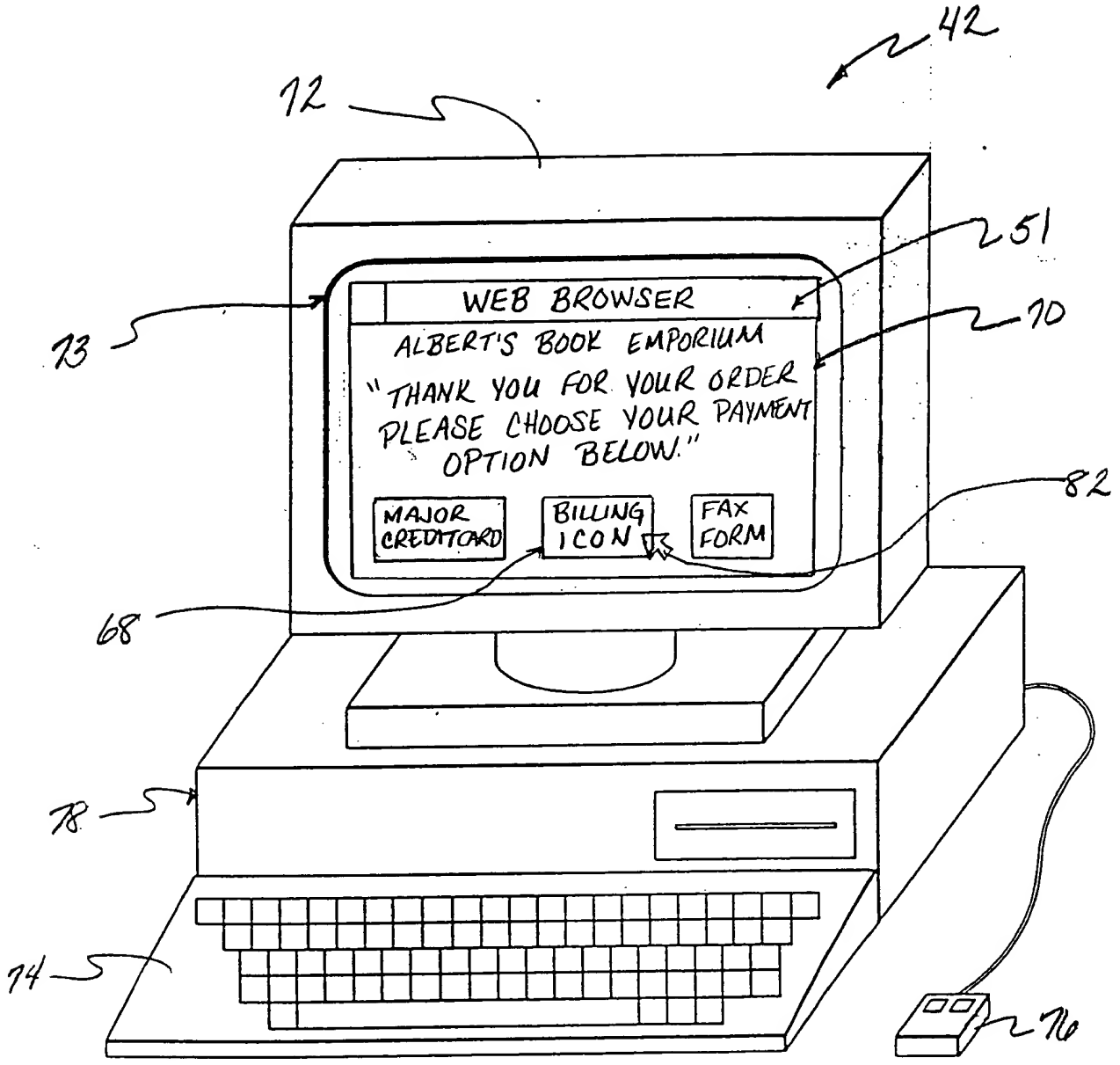

42
72
51
73
WEB BROWSER
70
ALBERT'S BOOK EMPORIUM
"THANK YOU FOR YOUR ORDER
PLEASE CHOOSE YOUR PAYMENT
OPTION BELOW."
82
MAJOR CREDITCARD
BILLING ICON
FAX FORM
68
78
74
76

FIG. 5B

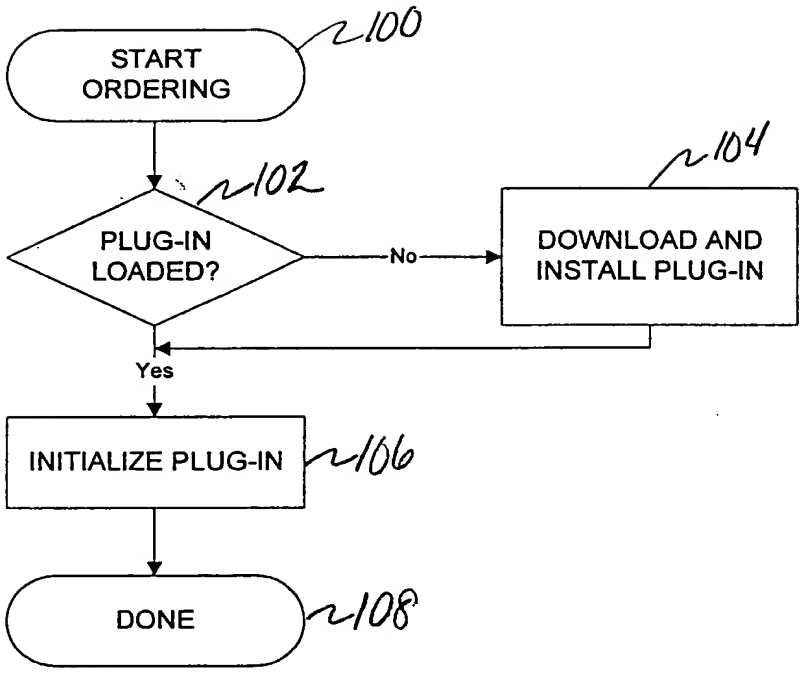

START ORDERING
100
PLUG-IN LOADED?
102
No
DOWNLOAD AND INSTALL PLUG-IN
104
Yes
INITIALIZE PLUG-IN
106
DONE
108

FIGURE 6

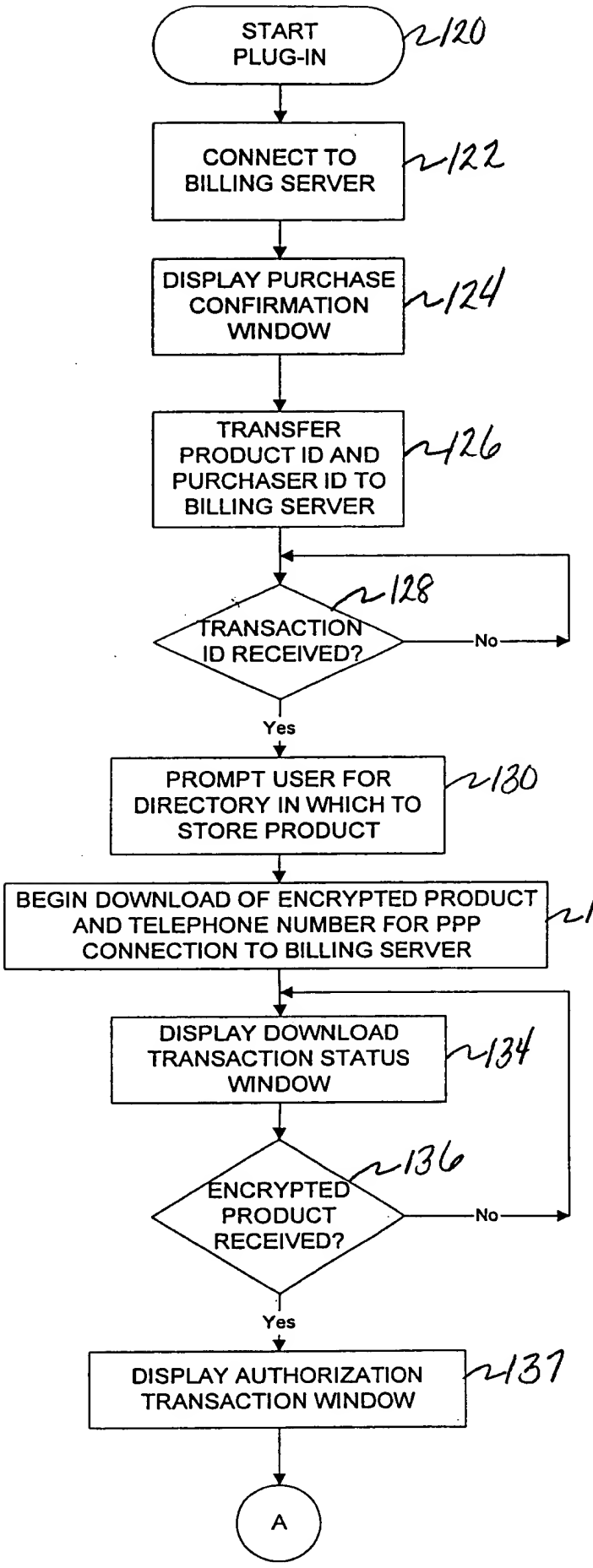
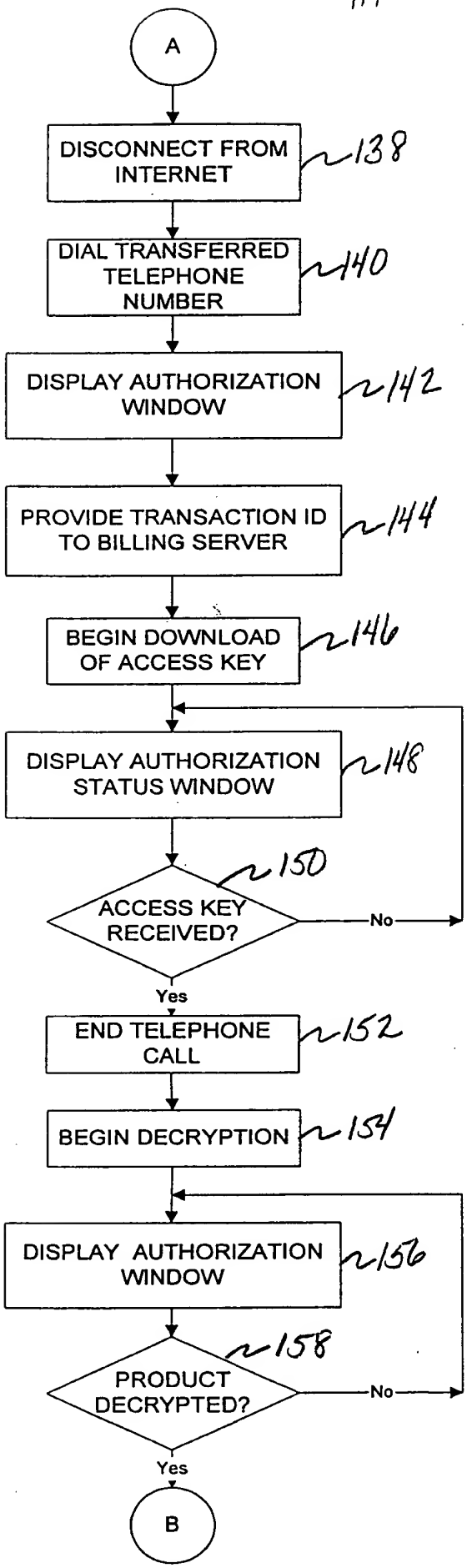

START PLUG-IN
120
CONNECT TO BILLING SERVER
122
DISPLAY PURCHASE CONFIRMATION WINDOW
124
52
TRANSFER PRODUCT ID AND PURCHASER ID TO BILLING SERVER
126
128
TRANSACTION ID RECEIVED?
No
Yes
PROMPT USER FOR DIRECTORY IN WHICH TO STORE PRODUCT
130
BEGIN DOWNLOAD OF ENCRYPTED PRODUCT AND TELEPHONE NUMBER FOR PPP CONNECTION TO BILLING SERVER
132
DISPLAY DOWNLOAD TRANSACTION STATUS WINDOW
134
136
ENCRYPTED PRODUCT RECEIVED?
No
Yes
DISPLAY AUTHORIZATION TRANSACTION WINDOW
137
A

FIGURE 7A


A
DISCONNECT FROM INTERNET
138
DIAL TRANSFERRED TELEPHONE NUMBER
140
DISPLAY AUTHORIZATION WINDOW
142
PROVIDE TRANSACTION ID TO BILLING SERVER
144
BEGIN DOWNLOAD OF ACCESS KEY
146
DISPLAY AUTHORIZATION STATUS WINDOW
148
150
ACCESS KEY RECEIVED?
No
Yes
END TELEPHONE CALL
152
BEGIN DECRYPTION
154
DISPLAY AUTHORIZATION WINDOW
156
158
PRODUCT DECRYPTED?
No
Yes
B

52

FIGURE 7B

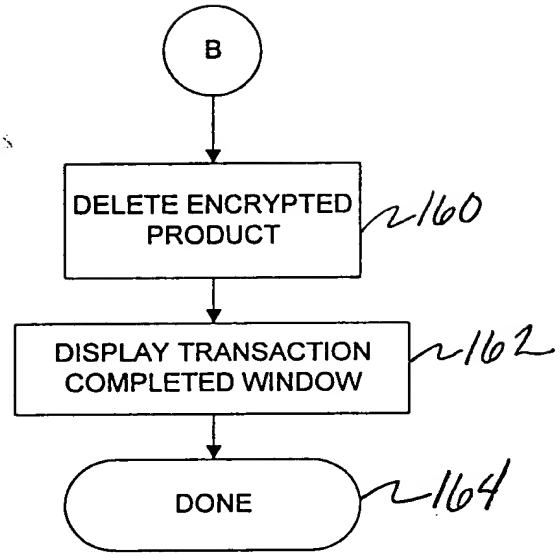

B
DELETE ENCRYPTED PRODUCT
160
DISPLAY TRANSACTION COMPLETED WINDOW
162
DONE
164

FIGURE 7C

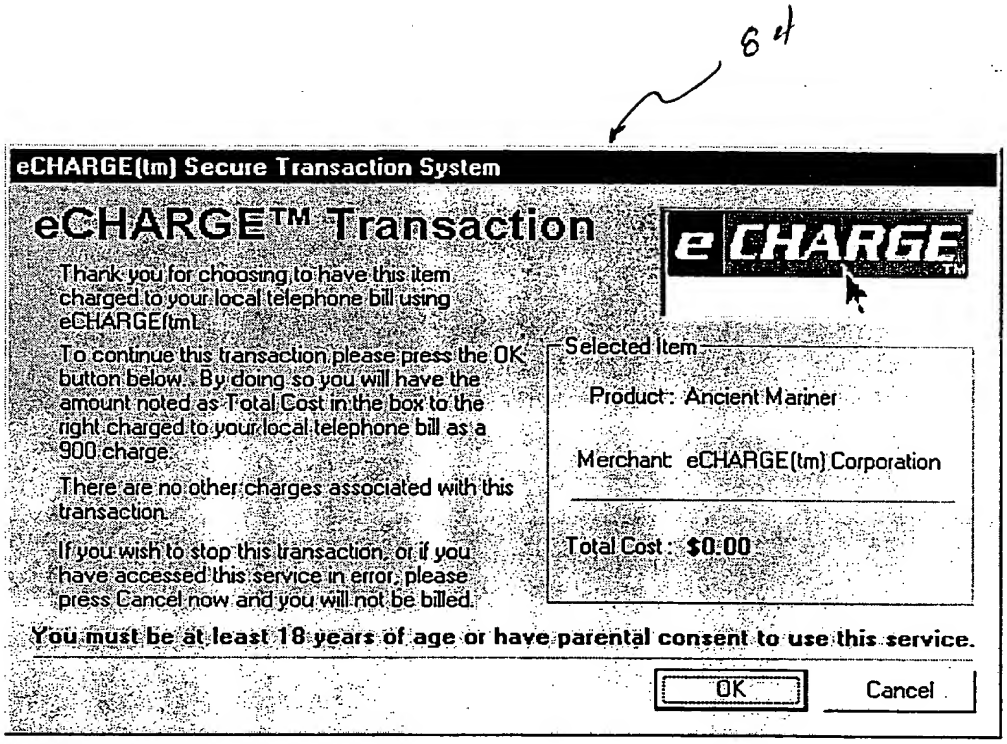

84
eCHARGE(tm) Secure Transaction System
eCHARGE™ Transaction
eCHARGE
Thank you for choosing to have this item charged to your local telephone bill using eCHARGE(tm).
To continue this transaction please press the OK button below. By doing so you will have the amount noted as Total Cost in the box to the right charged to your local telephone bill as a 900 charge.
There are no other charges associated with this transaction.
If you wish to stop this transaction, or if you have accessed this service in error, please press Cancel now and you will not be billed.
Selected Item
Product: Ancient Mariner
Merchant: eCHARGE(tm) Corporation
Total Cost: $0.00
You must be at least 18 years of age or have parental consent to use this service.
OK
Cancel

Fig 8A

11/19

86

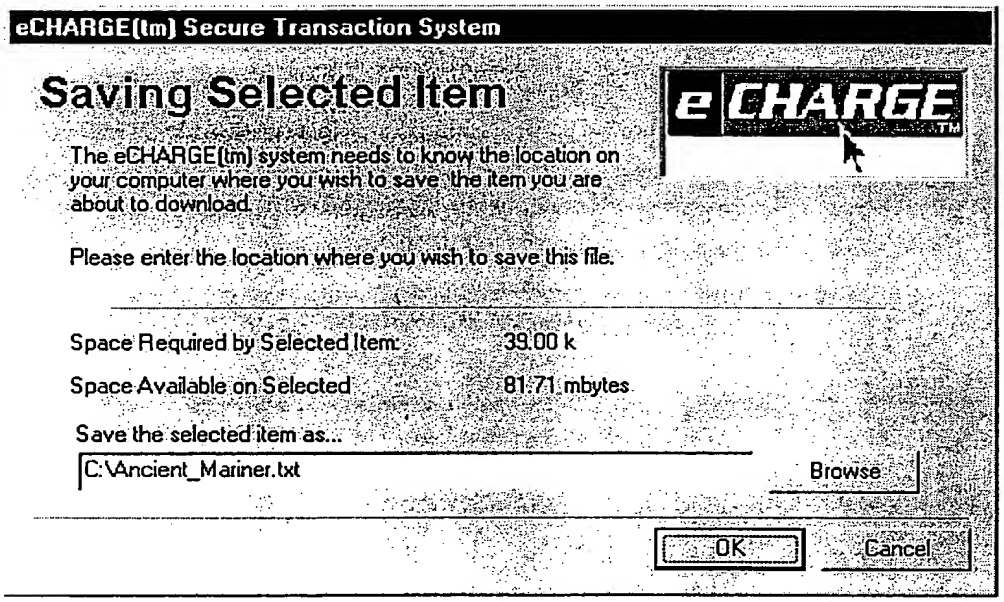


FIG 8B

68

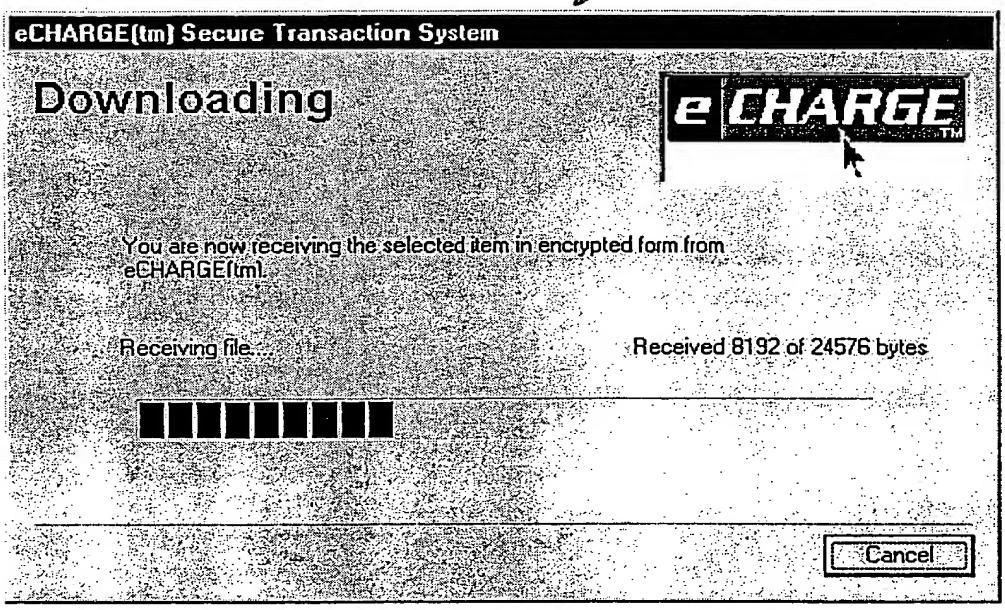

eCHARGE(tm) Secure Transaction System
Downloading
eCHARGE
You are now receiving the selected item in encrypted form from eCHARGE(tm).
Receiving file...
Received 8192 of 24576 bytes
Cancel

FIG 8C

S 89

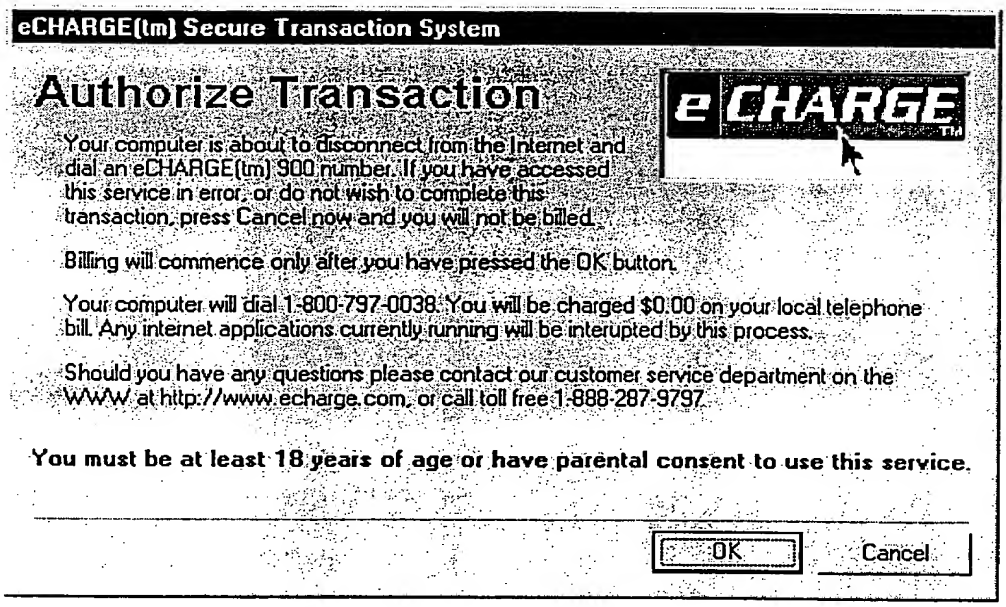

eCHARGE(tm) Secure Transaction System
Authorize Transaction
eCHARGE
Your computer is about to disconnect from the Internet and dial an eCHARGE(tm) 900 number. If you have accessed this service in error, or do not wish to complete this transaction, press Cancel now and you will not be billed.
Billing will commence only after you have pressed the OK button.
Your computer will dial 1-800-797-0038. You will be charged $0.00 on your local telephone bill. Any internet applications currently running will be interupted by this process.
Should you have any questions please contact our customer service department on the WWW at http://www.echarge.com, or call toll free 1-888-287-9797.
You must be at least 18 years of age or have parental consent to use this service.
OK
Cancel

FIG 8A

90

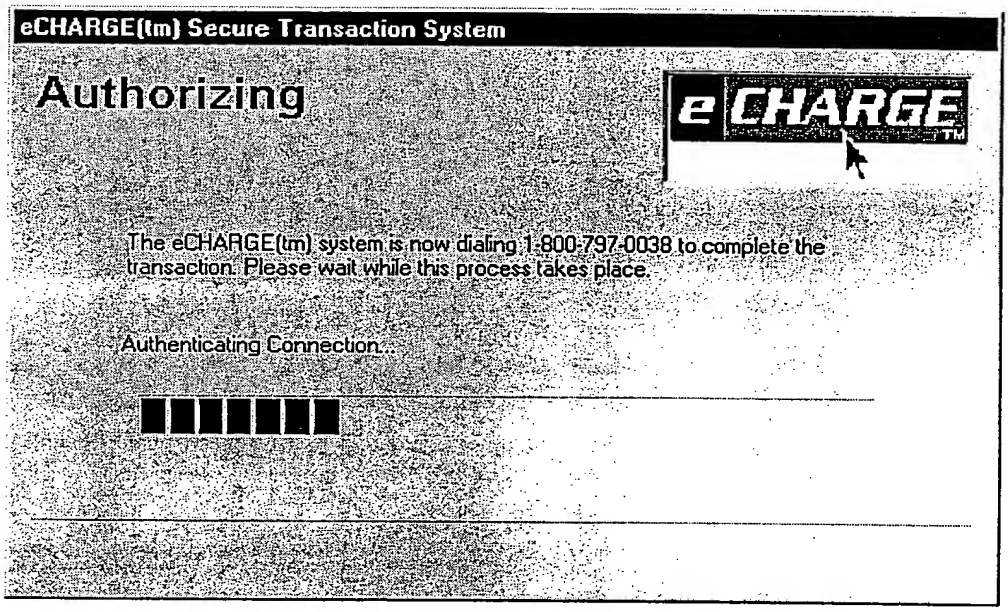

eCHARGE(tm) Secure Transaction System
Authorizing
eCHARGE
The eCHARGE(tm) system is now dialing 1-800-797-0038 to complete the transaction. Please wait while this process takes place.
Authenticating Connection...

FIG 8E

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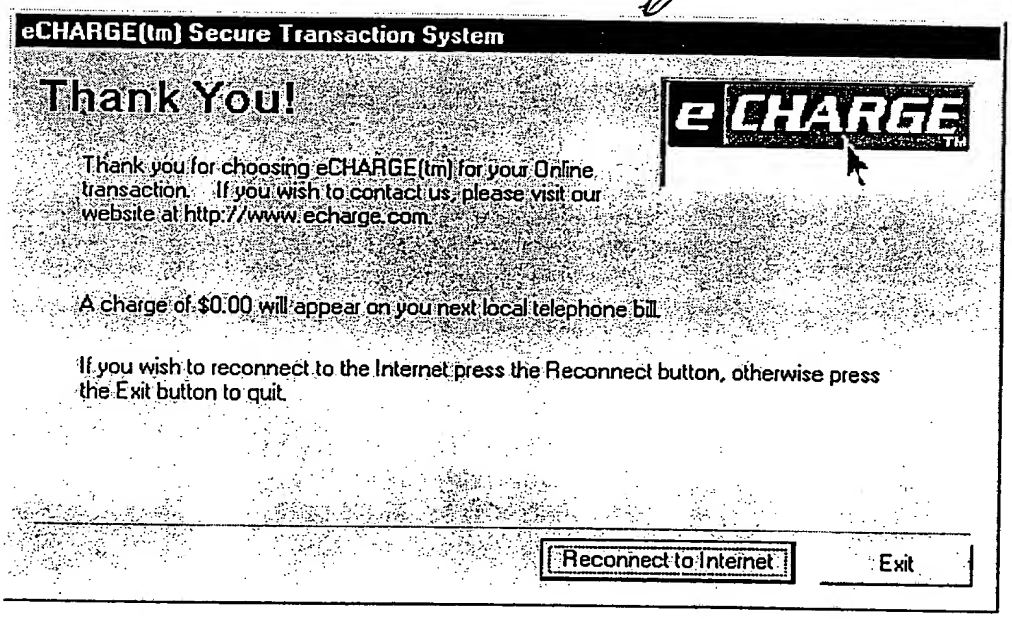
eCHARGE(tm) Secure Transaction System
Thank You!
eCHARGE
Thank you for choosing eCHARGE(tm) for your Online transaction. If you wish to contact us, please visit our website at http://www.echarge.com.
A charge of $0.00 will appear on you next local telephone bill.
If you wish to reconnect to the Internet press the Reconnect button, otherwise press the Exit button to quit.
Reconnect to Internet
Exit

Fig 8F.

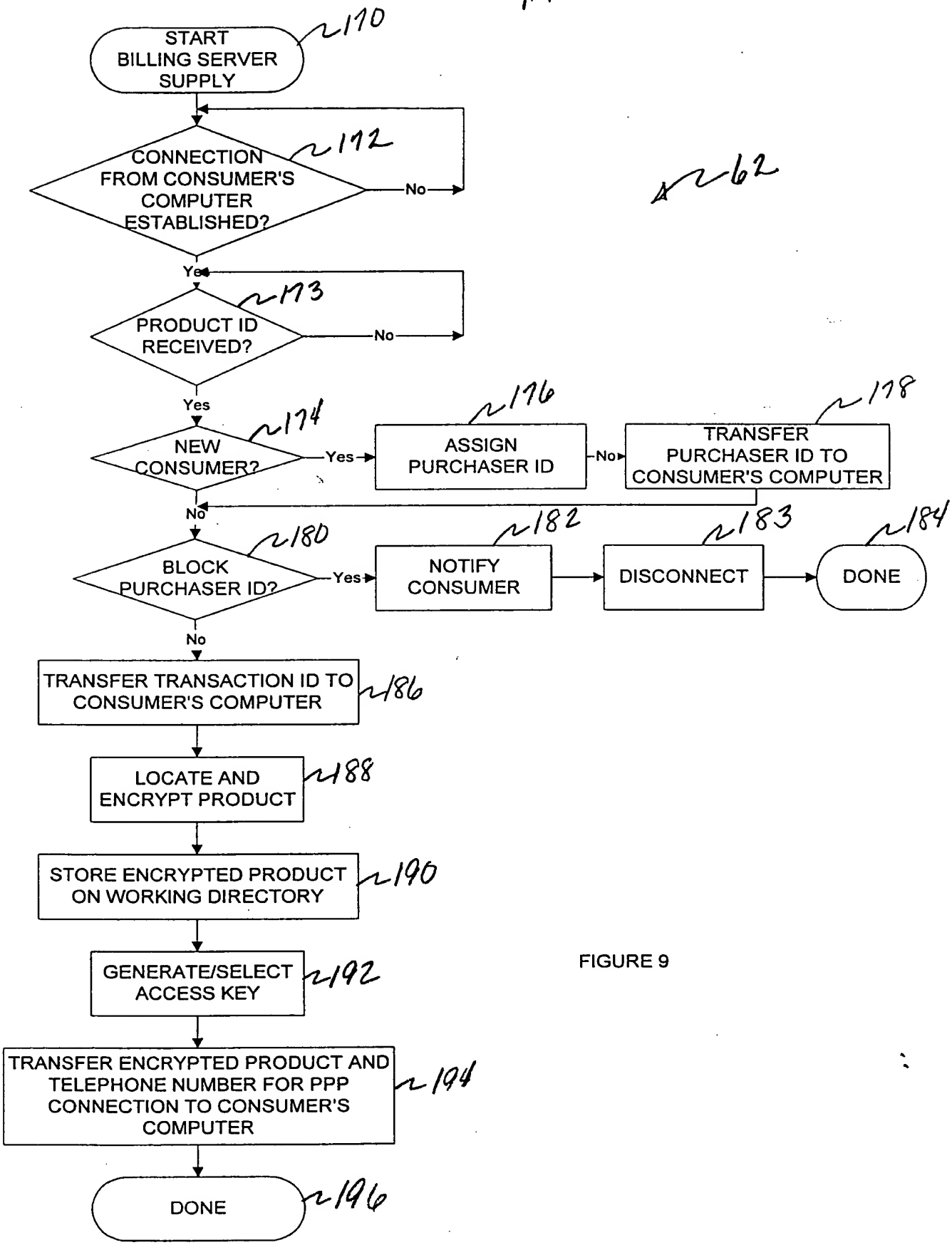
START BILLING SERVER SUPPLY
170
CONNECTION FROM CONSUMER'S COMPUTER ESTABLISHED?
172
No
Yes
PRODUCT ID RECEIVED?
173
No
Yes
NEW CONSUMER?
174
Yes
ASSIGN PURCHASER ID
176
No
TRANSFER PURCHASER ID TO CONSUMER'S COMPUTER
178
No
BLOCK PURCHASER ID?
180
Yes
NOTIFY CONSUMER
182
DISCONNECT
183
DONE
184
No
TRANSFER TRANSACTION ID TO CONSUMER'S COMPUTER
186
LOCATE AND ENCRYPT PRODUCT
188
STORE ENCRYPTED PRODUCT ON WORKING DIRECTORY
190
GENERATE/SELECT ACCESS KEY
192
TRANSFER ENCRYPTED PRODUCT AND TELEPHONE NUMBER FOR PPP CONNECTION TO CONSUMER'S COMPUTER
194
DONE
196
162

FIGURE 9

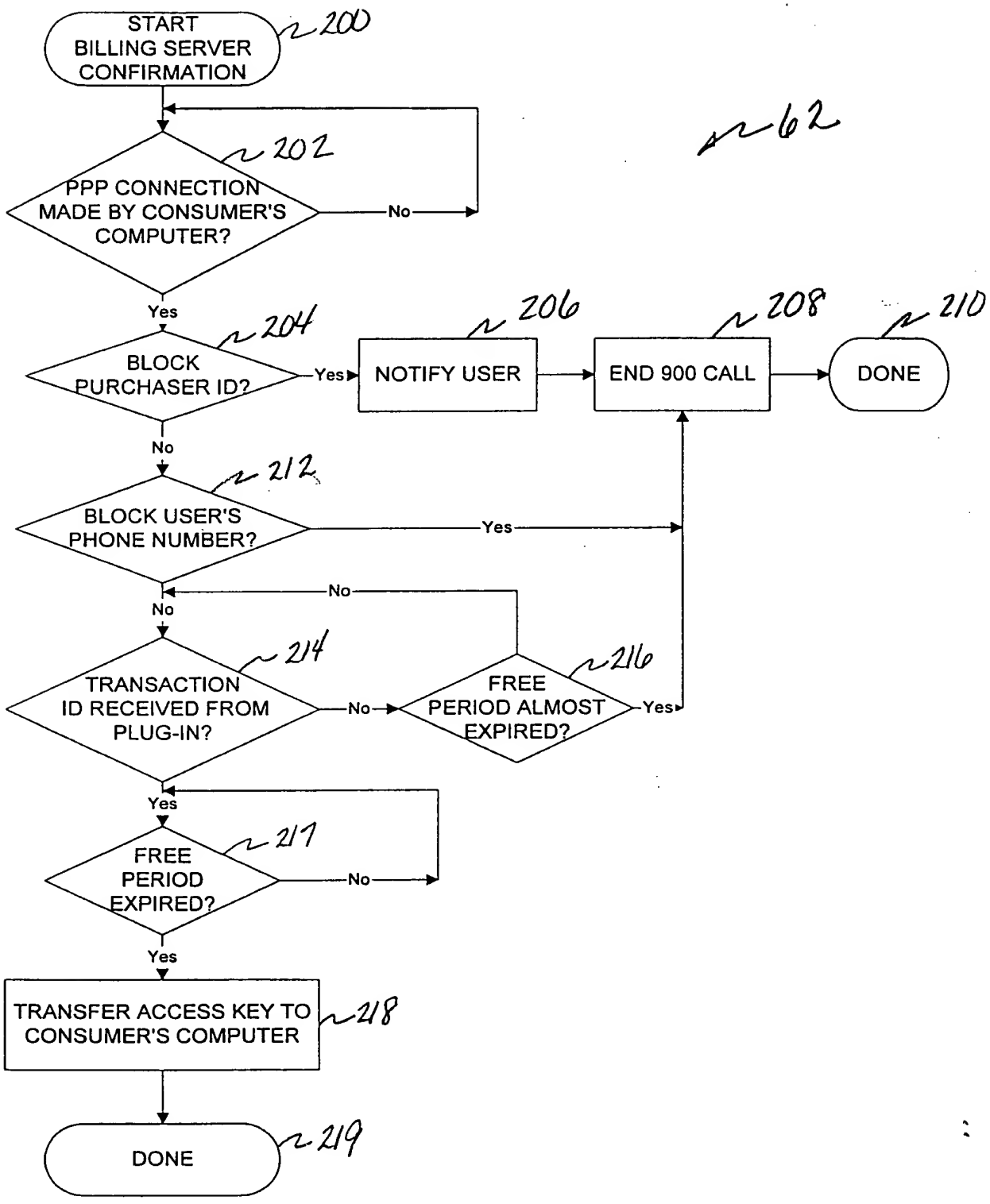
START BILLING SERVER CONFIRMATION
200
62
PPP CONNECTION MADE BY CONSUMER'S COMPUTER?
202
No
Yes
BLOCK PURCHASER ID?
204
Yes
NOTIFY USER
206
END 900 CALL
208
DONE
210
No
BLOCK USER'S PHONE NUMBER?
212
Yes
No
No
TRANSACTION ID RECEIVED FROM PLUG-IN?
214
No
FREE PERIOD ALMOST EXPIRED?
216
Yes
Yes
FREE PERIOD EXPIRED?
217
No
Yes
TRANSFER ACCESS KEY TO CONSUMER'S COMPUTER
218
DONE
219

FIGURE 10

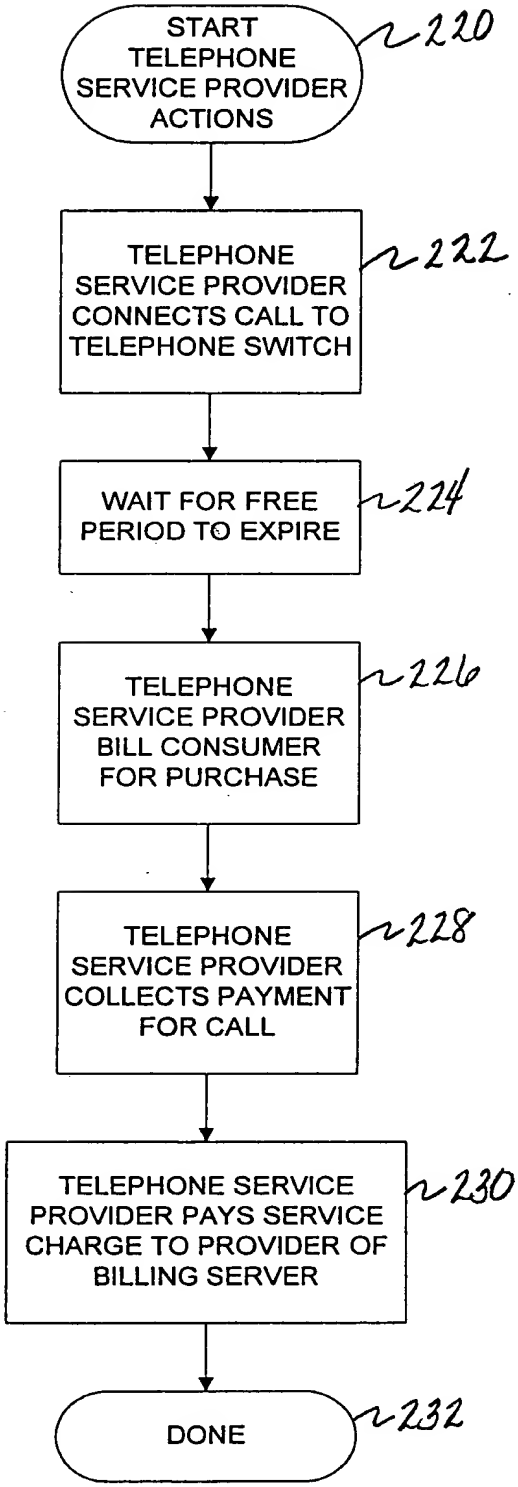
START TELEPHONE SERVICE PROVIDER ACTIONS
220
TELEPHONE SERVICE PROVIDER CONNECTS CALL TO TELEPHONE SWITCH
222
WAIT FOR FREE PERIOD TO EXPIRE
224
TELEPHONE SERVICE PROVIDER BILL CONSUMER FOR PURCHASE
226
TELEPHONE SERVICE PROVIDER COLLECTS PAYMENT FOR CALL
228
TELEPHONE SERVICE PROVIDER PAYS SERVICE CHARGE TO PROVIDER OF BILLING SERVER
230
DONE
232

FIGURE 11

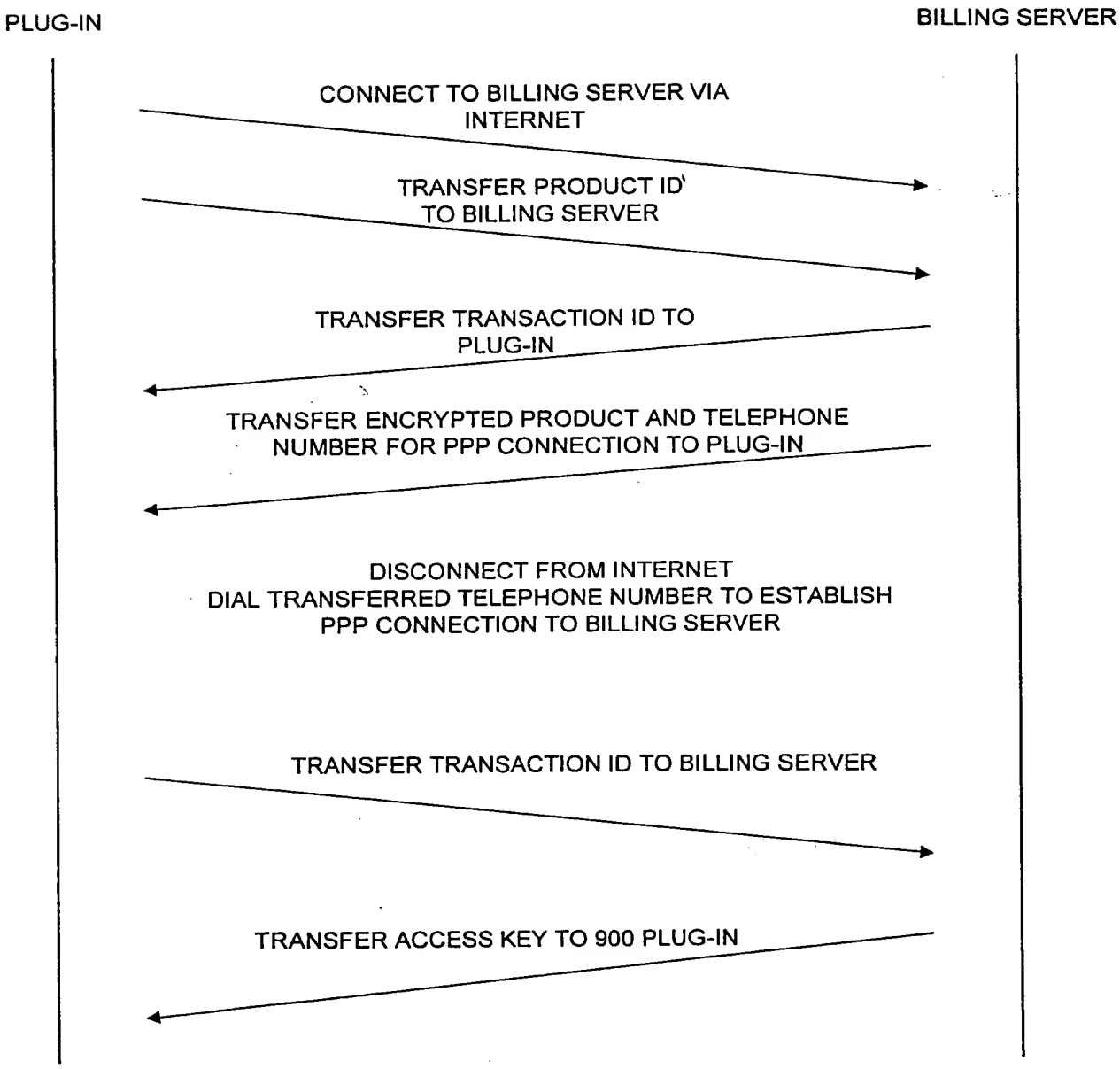
PLUG-IN
BILLING SERVER
CONNECT TO BILLING SERVER VIA INTERNET
TRANSFER PRODUCT ID TO BILLING SERVER
TRANSFER TRANSACTION ID TO PLUG-IN
TRANSFER ENCRYPTED PRODUCT AND TELEPHONE NUMBER FOR PPP CONNECTION TO PLUG-IN
DISCONNECT FROM INTERNET
DIAL TRANSFERRED TELEPHONE NUMBER TO ESTABLISH PPP CONNECTION TO BILLING SERVER
TRANSFER TRANSACTION ID TO BILLING SERVER
TRANSFER ACCESS KEY TO 900 PLUG-IN

FIGURE 12